

SITE DEVELOPMENT PLAN

RESIDENTIAL DEVELOPMENT

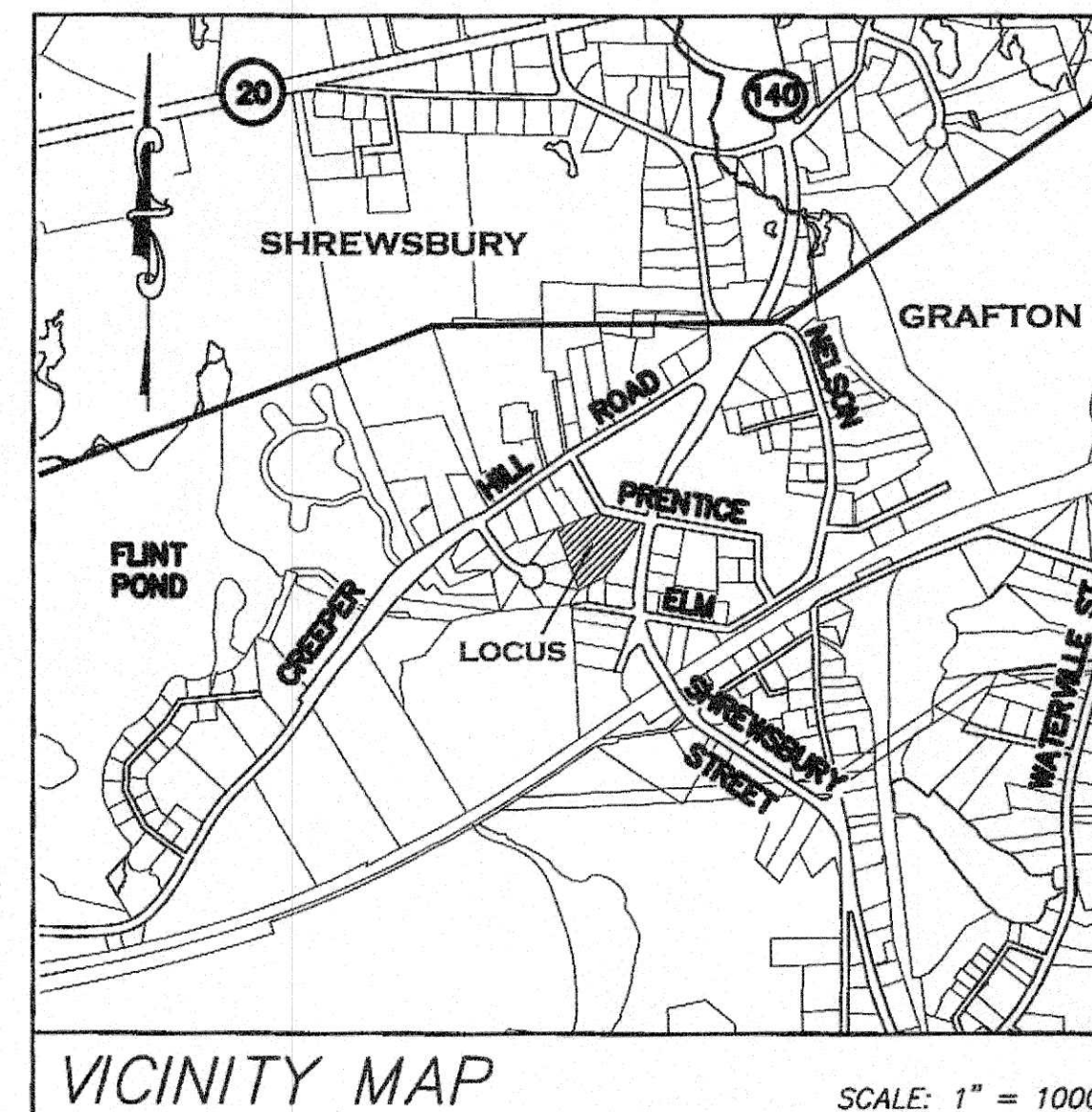
23 PRENTICE STREET

IN

GRAFTON, MASSACHUSETTS

AUGUST 23, 2017

APPROVED PLAN SET - JANUARY 20, 2021



PROJECT NOTES:

REFERENCE IS MADE TO ORDER OF CONDITIONS ISSUED BY THE TOWN OF GRAFTON CONSERVATION COMMISSION UNDER DEP FILE #164-0991 ISSUED ON OCTOBER 1, 2020 AND RECORDED IN THE WORCESTER SOUTH COUNTY REGISTRY OF DEEDS (BOOK 63563, PAGE 370).

THIS PROJECT IS SUBJECT TO A DECISION RELATIVE TO APPLICATION FOR A COMPREHENSIVE PERMIT ISSUED BY THE TOWN OF GRAFTON ZONING BOARD OF APPEALS ON MARCH, 17 2020 PER G.L.c40B, §20-23. THIS DECISION IS RECORDED IN THE WORCESTER SOUTH COUNTY REGISTRY OF DEEDS (BOOK 62471, PAGE 311).

PLAN INDEX

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SHEET 2	SITE LAYOUT PLAN
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SHEET 7	SEWER PROFILE
SHEET 8	LANDSCAPE & TREE PLAN
SHEET 9-12	CONSTRUCTION DETAILS

APPROVED PLAN SET

SHEET 1 OF 13

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DAVID J. LeROY, P.L.S.#47416 1-2021

WORCESTER DISTRICT REGISTRY OF DEEDS-WORCESTER, MA

PLAN BOOK 955 PLAN 23

Received 3/1/21

10 h 12 m A.M.

Sheet 1 of 13

Fee \$ 1,365.-

ATTEST: *Kathryn A. Torrey* Register

OWNER/APPLICANT

PRENTICE PLACE, LLC
C/O SOTIR PAPILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545
TEL: (508) 840-0564

CIVIL ENGINEER & LAND SURVEYOR:

HANNIGAN ENGINEERING, INC.
8 MONUMENT SQUARE
LEOMINSTER, MASSACHUSETTS 01453
TEL: (978) 534-1234

Town Clerk Kandy L. Saville

APPROVAL PURSUANT TO CH. 40B §20.23

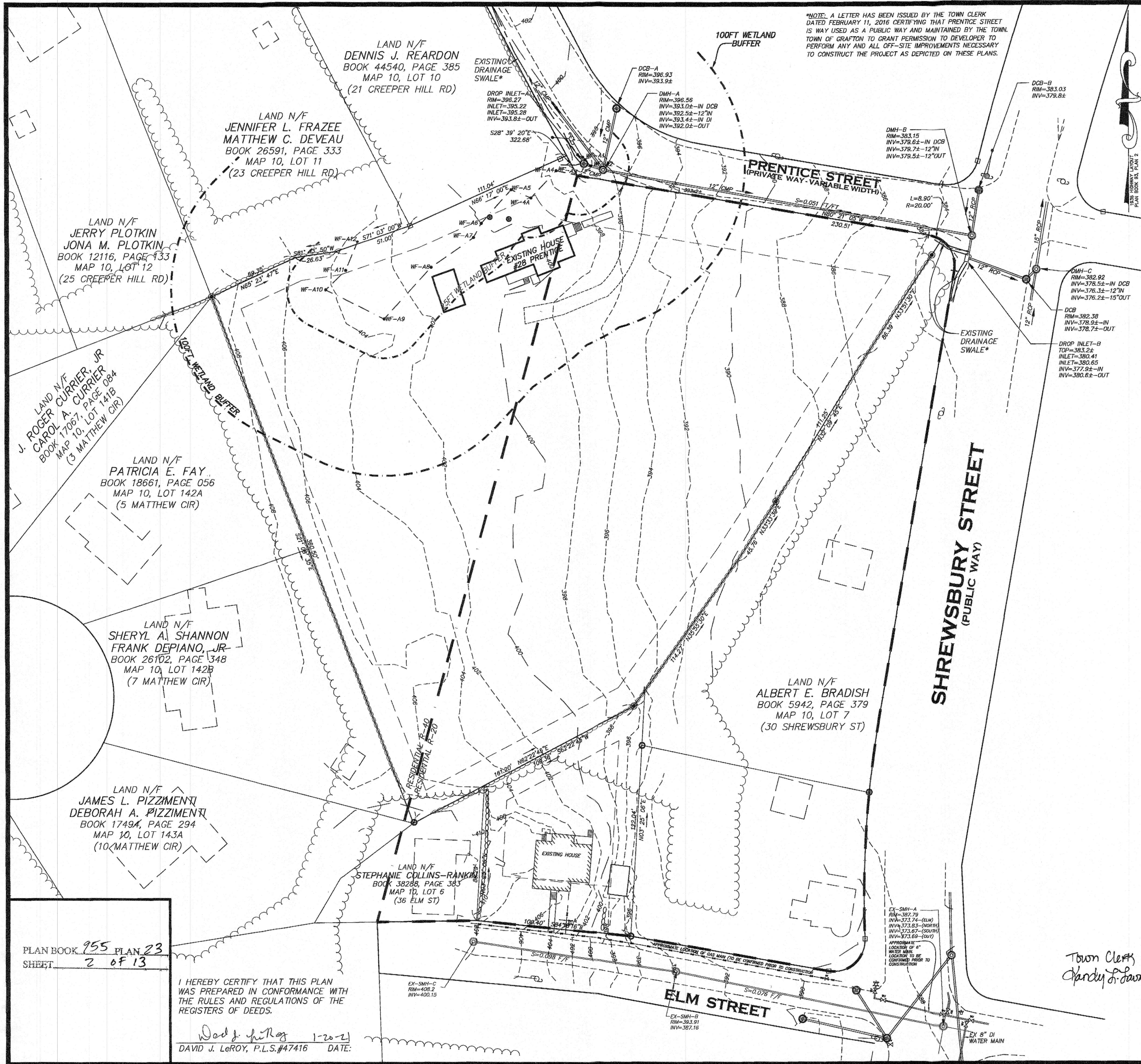
GRAFTON BOARD OF APPEALS

DATE: 2/22/21

[Signature] CHAIR

[Signature]

[Signature]



PROJECT INFORMATION

LAND INFORMATION	
MAP/PARCEL:	10/8
DEED BOOK/PAGE:	53726/39
FRONTAGE:	537.35 FT
PROPOSED AREA:	2.56 ACRES
ZONING INFORMATION	
ZONING DISTRICT:	RESIDENTIAL SPLIT (R20/R40)
DIMENSIONAL REQUIREMENTS:	RESIDENTIAL (R20) RESIDENTIAL (R40)
MINIMUM AREA:	20,000 SF (0.46AC) 40,000 SF (0.92 AC)
MINIMUM FRONTAGE:	125 FEET 140 FEET
MINIMUM SETBACKS:	35 FEET 35 FEET
MINIMUM SETBACKS:	30 FT 30 FT
FRONT YARD:	15 FT 15 FT
SIDE YARD:	15 FT 15 FT
REAR YARD:	15 FT 15 FT
MINIMUM LOT WIDTH:	140 FT 140 FT
BUILDING COVERAGE:	30% (MAX) 30% (MAX)

- GENERAL NOTES:
1. PROPERTY LINE INFORMATION IS BASED ON A PROPERTY LINE SURVEY PERFORMED BY HANNIGAN ENGINEERING, INC. TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ON-THE-GROUND TOPOGRAPHIC SURVEY BY HANNIGAN ENGINEERING, INC. IN JANUARY OF 2016.
 2. AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT HAVE BEEN DELINEATED BY CARON ENVIRONMENTAL CONSULTING ON JAN. 5, 2016 AND APPROVED BY THE GRAFTON CONSERVATION COMMISSION WITH AN ORDER OF RESOURCE AREA DELINEATION ISSUED ON JULY 21, 2017.
 3. LOCATION OF ALL UTILITIES ARE APPROXIMATE AS SHOWN AND BASED UPON VISIBLE STRUCTURES AT THE TIME OF THE FIELD SURVEY. LOCATION OF EXISTING UTILITIES AND SUBSURFACE STRUCTURES, WHETHER OR NOT SHOWN ON THESE PLANS, SHALL BE DETERMINED BY THE CONTRACTOR, MARKED IN THE FIELD, AND REVIEWED BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE AWARE OF THE OBLIGATION TO ALL UTILITY COMPANIES AND AGENCY AS WELL AS DIG-SAFE PRIOR TO EXCAVATION. (1-BBB-DIG SAFE)
 4. NOTIFICATION REQUIREMENTS SHOWN ON THIS PLAN SHALL NOT RELIEVE THE CONTRACTOR OF ANY OTHER REQUIREMENTS WHICH MAY EXIST UNDER LOCAL, STATE, OR FEDERAL JURISDICTION TO WHICH THE CONTRACTOR IS OBLIGATED.
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 6. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF THE TOWN OF GRAFTON AND THE MASS DOT SPECIFICATIONS OF HIGHWAYS AND BRIDGES.
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 15. THE AREA PROPOSED FOR DEVELOPMENT IS NOT WITHIN A 100 YEAR FLOOD PLAIN PER FEMA FIRM PANEL 25022C027E, DATED: JULY 4, 2011. COMPLIANCE WITH APPLICABLE REGULATIONS IS REQUIRED.
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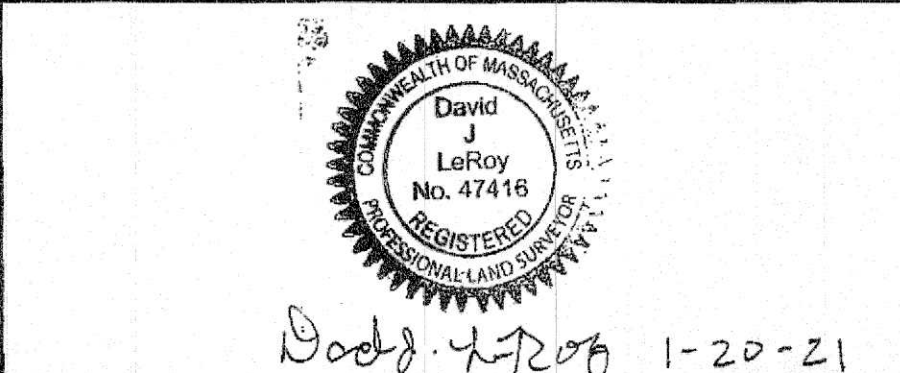
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C/O SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545

APPROVAL PURSUANT TO CH. 40 B §20.23
GRAFTON BOARD OF APPEALS
DATE: 2/22/21
CHAIR
TOWN CLERK
Chandy S. Papalillo

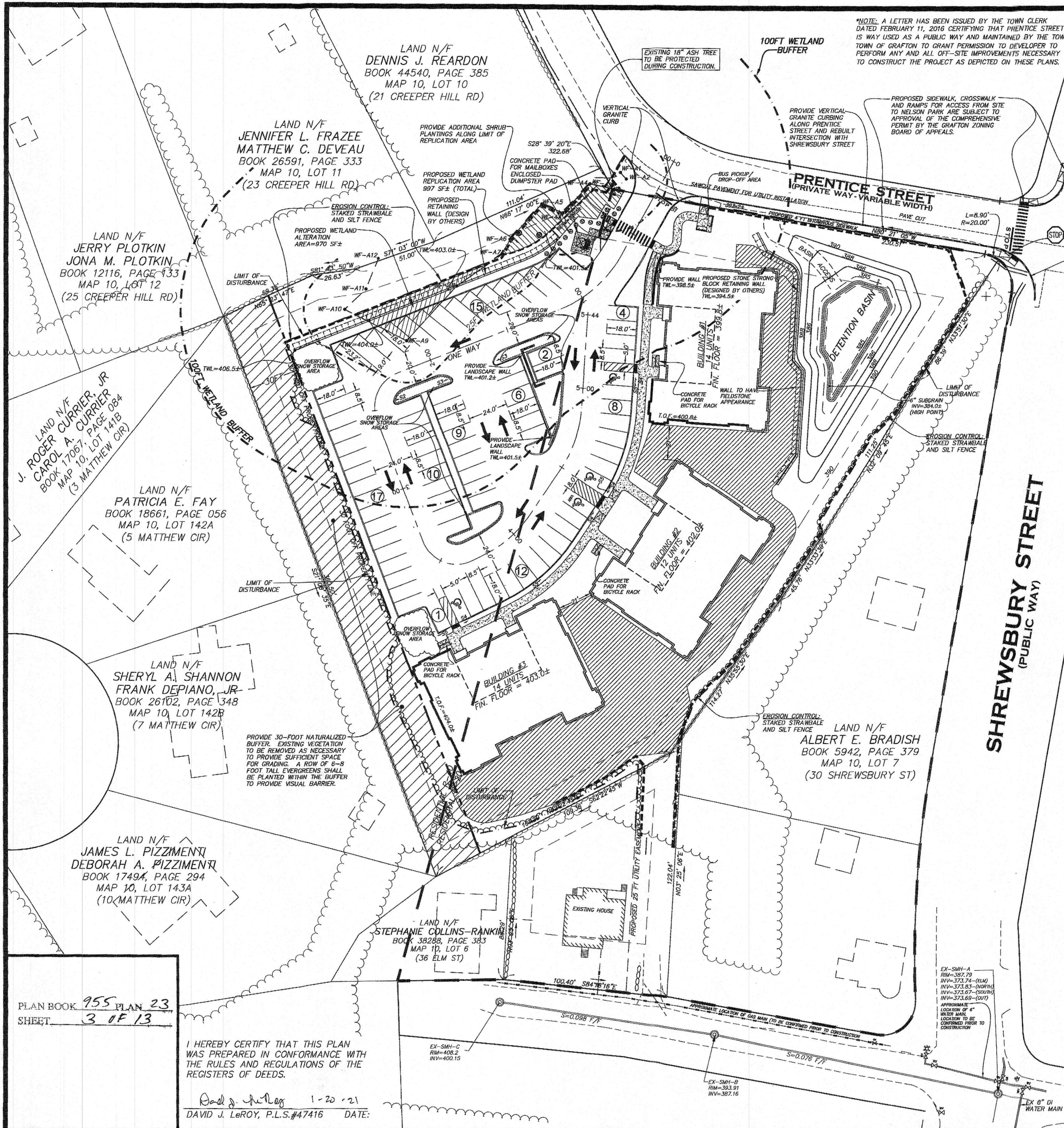


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(978) 534-1234 (T)
(978) 934-6060 (F)
WWW.HANNIGANENGINEERING.COM

EXISTING CONDITIONS PLAN
IN
GRAFTON, MASSACHUSETTS

PREPARED FOR:
PRENTICE PLACE, LLC
SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
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TEL: (508) 845-0564

GRAPHIC SCALE: 1"=30'		
0 10 20 30 40 50 75 100 125 FEET 0 5 10 15 20 25 30 35 METERS		
CALC: CMA/WDH	DRWN: CMA/WDH	SCALE: 1"=30'
CHKD: WDH	APPD: WDH	DATE: AUG 23, 2017
SRV: JEF/PJB	FB: E2565.122115	JOB NO: 2565
TAB: 1-EX COND	SHEET 2 OF 13	PLAN NO: C-12-15



PROJECT DATA & SPECIFICATIONS

PROPOSED RESIDENTIAL DEVELOPMENT

LAND INFORMATION	ON-SITE	PERCENTAGE
TOTAL LAND AREA:	2.56 AC.	100%
TOTAL WETLAND AREAS:	0.09 AC.	3.5%
TOTAL DEVELOPED AREAS:	2.20 AC.	86%
UNDEVELOPED AREAS:	0.36 AC.	14%
TOTAL IMPERVIOUS AREAS:	1.16 AC.	45%
DRIVEWAYS, PARKING, WALKS, BUILDINGS:	0.73 AC.	63%
	0.43 AC.	37%
OPEN AREAS/LANDSCAPED AREAS:	1.40 AC.	55%
UNDEVELOPED OPEN AREAS:	0.36 AC.	26%
LANDSCAPED AREAS:	1.04 AC.	74%

BUILDING INFORMATION
PROPOSED NUMBER OF UNITS: 40 UNITS SITUATED AMONGST 3 BUILDINGS (15.63 UNITS/ACRE)

PARKING INFORMATION
REQUIRED NUMBER OF SPACES: 90 SPACES (2.25:1 RATIO, PER SEC.4.2.2)
PROVIDED NUMBER OF SPACES: 84 SPACES (2.1:1 UNIT RATIO)

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ROADWAYS AND DRIVEWAYS WITHIN PROJECT SCOPE MAY OR MAY NOT CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE PLANNING BOARD'S SUBDIVISION RULES AND REGULATIONS.

APPLICANT
PRENTICE PLACE, LLC
C/O SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545

Town Clerk Andy L. Saville
APPROVAL PURSUANT TO CH. 40B §20.23
GRAFTON BOARD OF APPEALS
DATE: 2/23/21
CHAIR

PROJECT INFORMATION

LAND INFORMATION
MAP/PARCEL: 10/8
DEED BOOK/PAGE: 53726/58
FRONTAGE: 257.35 FT
PROPOSED AREA: 2.56 ACRES±

ZONING INFORMATION
ZONING DISTRICT: RESIDENTIAL SPLIT (R20/R40)
DIMENSIONAL REQUIREMENTS: RESIDENTIAL (R20) RESIDENTIAL (R40)
MINIMUM AREA: 20,000 SF (0.46AC±) 40,000 SF (0.92 AC±)
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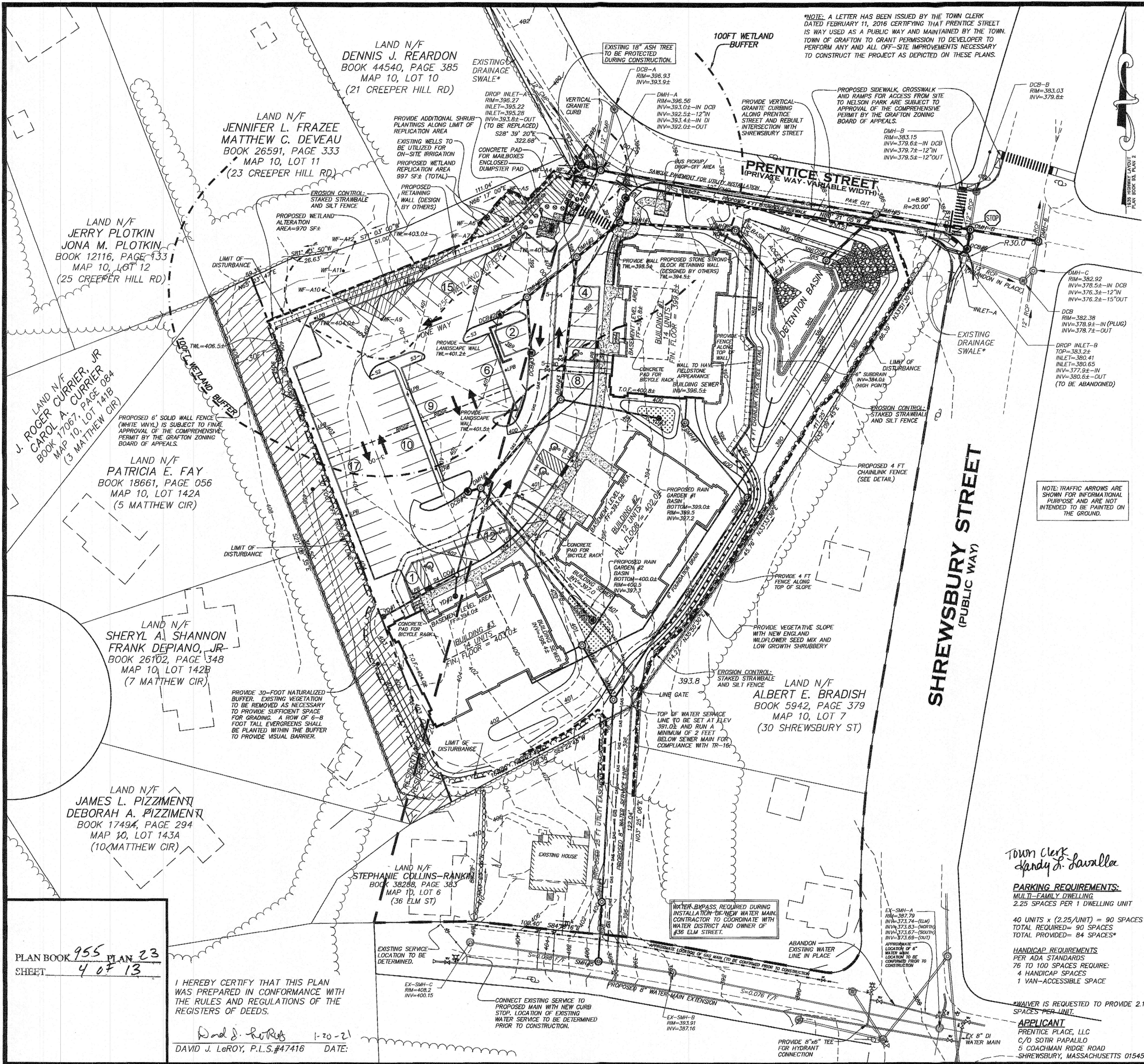
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SITE LAYOUT PLAN
IN
GRAFTON, MASSACHUSETTS

PREPARED FOR:
PRENTICE PLACE, LLC
SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS
TEL: (508) 845-0564

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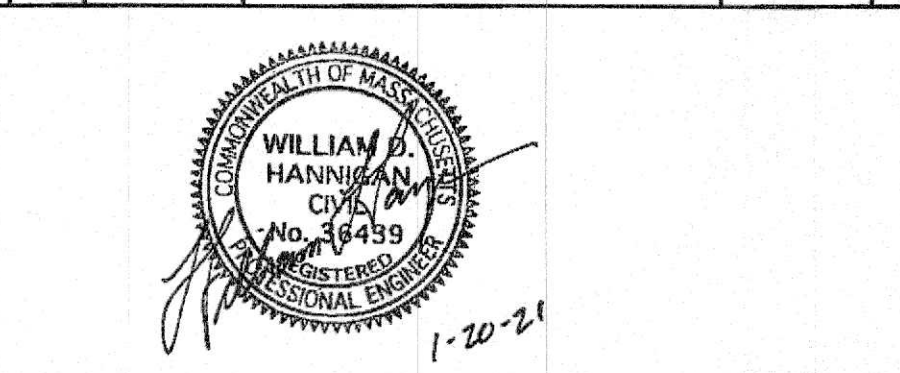


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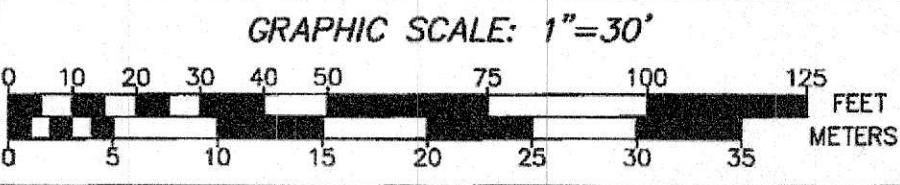


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IN
GRAFTON, MASSACHUSETTS

PREPARED FOR:
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SOTIR PAPAIOU
PO BOX 250
SHREWSBURY, MASSACHUSETTS
TEL: (508) 845-0564



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CHKD:	WDH	APPD:	WDH	DATE:	AUG 23, 2017
SRV:	JE/PJB	FB:	E2565.122115	JOB NO:	2565
TAB:	3-SITE	SHEET	4 OF 13	PLAN NO:	C-12-15

PROJECT NOTES:

REFERENCE IS MADE TO ORDER OF CONDITIONS ISSUED BY THE TOWN OF GRAFTON CONSERVATION COMMISSION UNDER DEP FILE #164-0991 ISSUED ON OCTOBER 1, 2020 AND RECORDED IN THE WORCESTER SOUTH COUNTY REGISTRY OF DEEDS (BOOK 63563, PAGE 370).

THIS PROJECT IS SUBJECT TO A DECISION RELATIVE TO APPLICATION FOR A COMPREHENSIVE PERMIT ISSUED BY THE TOWN OF GRAFTON ZONING BOARD OF APPEALS ON MARCH, 17 2020 PER G.L.C40B,§20-23. THIS DECISION IS RECORDED IN THE WORCESTER SOUTH COUNTY REGISTRY OF DEEDS (BOOK 62471, PAGE 311).

ROADWAYS AND DRIVEWAYS WITHIN PROJECT SCOPE MAY OR MAY NOT CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE PLANNING BOARD'S SUBDIVISION RULES AND REGULATIONS.

APPROVAL PURSUANT TO CH. 40 B §20.23
GRAFTON BOARD OF APPEALS

DATE: 2/22/21
CHAIR
APPLICANT
PRENTICE PLACE, LLC
C/O SOTIR PAPAIOU
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545

Town Clerk
Handy J. Savella

PARKING REQUIREMENTS:
MULTI-FAMILY DWELLING
2.25 SPACES PER 1 DWELLING UNIT

40 UNITS x (2.25/UNIT) = 90 SPACES
TOTAL REQUIRED= 90 SPACES
TOTAL PROVIDED= 84 SPACES*

HANDICAP REQUIREMENTS:
PER ADA STANDARDS
75 TO 100 SPACES REQUIRE:
4 HANDICAP SPACES
1 VAN-ACCESSIBLE SPACE

*WAVES IS REQUESTED TO PROVIDE 2.1 SPACES PER UNIT.
APPLICANT
PRENTICE PLACE, LLC
C/O SOTIR PAPAIOU
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545

PROJECT NOTES:

REFERENCE IS MADE TO ORDER OF CONDITIONS ISSUED BY THE TOWN OF GRAFTON CONSERVATION COMMISSION UNDER DEP FILE #164-0991 ISSUED ON OCTOBER 1, 2020 AND RECORDED IN THE WORCESTER SOUTH COUNTY REGISTRY OF DEEDS (BOOK 63563, PAGE 370).

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ROADWAYS AND DRIVEWAYS WITHIN PROJECT SCOPE MAY OR MAY NOT CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE PLANNING BOARD'S SUBDIVISION RULES AND REGULATIONS.

LAND N/F
JERRY PLOTKIN
JONA M. PLOTKIN
BOOK 12116, PAGE 133
MAP 10, LOT 12
(25 CREEPER HILL RD)

LAND N/F
J. ROGER CURRIER, JR
CAROL A. CURRIER
BOOK 17067, PAGE 084
MAP 10, LOT 141B
(3 MATTHEW CIR)

LAND N/F
PATRICIA E. FAY
BOOK 18661, PAGE 056
MAP 10, LOT 142A
(5 MATTHEW CIR)

LAND N/F
SHERYL A. SHANNON
FRANK DEPIANO, JR
BOOK 26102, PAGE 348
MAP 10, LOT 142B
(7 MATTHEW CIR)

LAND N/F
JAMES L. PIZZIMENTI
DEBORAH A. PIZZIMENTI
BOOK 17494, PAGE 294
MAP 10, LOT 143A
(10 MATTHEW CIR)

LAND N/F
DENNIS J. REARDON
BOOK 44540, PAGE 385
MAP 10, LOT 10
(21 CREEPER HILL RD)

LAND N/F
FRAZEE
DEVEAU
PAGE 333
OT 11
HILL RD)

LAND N/F
STEPHANIE COLLINS-RANKIN
BOOK 38288, PAGE 383
MAP 10, LOT 6
(36 ELM ST)

PLAN BOOK 955 PLAN 23
SHEET 5 of 13

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DAVID J. LeROY, P.L.S.#47416 DATE: 1-20-21

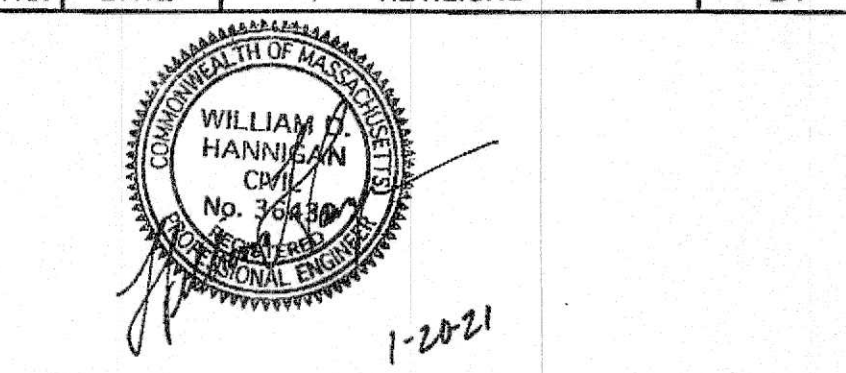
*NOTE: A LETTER HAS BEEN ISSUED BY THE TOWN CLERK DATED FEBRUARY 11, 2016 CERTIFYING THAT PRENTICE STREET IS WAY USED AS A PUBLIC WAY AND MAINTAINED BY THE TOWN. TOWN OF GRAFTON TO GRANT PERMISSION TO DEVELOPER TO PERFORM ANY AND ALL OFF-SITE IMPROVEMENTS NECESSARY TO CONSTRUCT THE PROJECT AS DEPICTED ON THESE PLANS.

PROJECT INFORMATION

LAND INFORMATION		10/8
MAP/PARCEL:	53726/58	
DEED BOOK/PAGE:	25735 FT	
PROPOSED AREA:	2.58 ACRES	
ZONING INFORMATION		
ZONING DISTRICT:	RESIDENTIAL SPUR (R20/R40)	
DIMENSIONAL REQUIREMENTS:	RESIDENTIAL (R20)	RESIDENTIAL (R40)
MINIMUM AREA:	20,000 SF (0.46AC)	40,000 SF (0.92 AC)
MINIMUM FRONTAGE:	125 FEET	140 FEET
MINIMUM DEPTH:	35 FEET	35 FEET
MINIMUM SETBACKS:		
FRONT YARD:	30 FT	30 FT
SIDE YARD:	15 FT	15 FT
REAR YARD:	15 FT	15 FT
MINIMUM LOT WIDTH:	140 FT	140 FT
BUILDING COVERAGE:	30% (MAX)	30% (MAX)

- GENERAL NOTES:
1. PROPERTY LINE INFORMATION IS BASED ON A PROPERTY LINE SURVEY PERFORMED BY HANNIGAN ENGINEERING, INC. TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ON-THE-GROUND TOPOGRAPHIC SURVEY BY HANNIGAN ENGINEERING, INC. IN JANUARY OF 2016.
 2. AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT HAVE BEEN IDENTIFIED BY GARRON ENVIRONMENTAL CONSULTING ON JAN. 5, 2016 AND APPROVED BY THE GRAFTON CONSERVATION COMMISSION WITH AN ORDER OF RESOURCE AREA DELINEATION ISSUED ON JULY 21, 2017.
 3. LOCATION OF UTILITIES ARE APPROXIMATE AS SHOWN AND BASED UPON RECORD DRAWINGS AT THE TIME OF THE FIELD SURVEY. LOCATION OF EXISTING UTILITIES AND SUBSURFACE STRUCTURES, WHETHER OR NOT SHOWN ON THESE PLANS, SHALL BE DETERMINED BY THE CONTRACTOR, MAINTAINED IN THE FIELD, AND REVIEWED BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE AWARE OF THE OBLIGATION TO ALL UTILITIES COMPANIES AND AGENCY AS WELL AS DIG-SAFE PRIOR TO EXCAVATION (1-888-DIGSAFE).
 4. NOTIFICATION REQUIREMENTS SHOWN ON THIS PLAN SHALL NOT RELIEVE THE CONTRACTOR OF ANY OTHER REQUIREMENTS WHICH MAY EXIST UNDER LOCAL, STATE, OR FEDERAL JURISDICTION TO WHICH THE CONTRACTOR IS OBLIGATED.
 5. LOCATION OF AND/OR CONNECTION TO EXISTING UTILITIES SHALL BE PERFORMED IN ACCORDANCE WITH PROVISIONS OF THE APPROPRIATE UTILITY COMPANY AND FOR REGULATORY AGENCY.
 6. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF THE TOWN OF GRAFTON AND THE MASS DOT SPECIFICATIONS OF HIGHWAYS AND BRIDGES.
 7. ALL SLOPES UNLESS OTHERWISE SPECIFIED, SHALL BE LOADED AND SEED FOR STABILIZATION.
 8. ANY DEVIATIONS IN DESIGN AS SHOWN SHALL REQUIRE A REVIEW AND APPROVAL OF THE DESIGN ENGINEER OR OTHER CHANGES MADE IN THE FIELD MADE WITHOUT AUTHORIZATION SHALL BE SUBJECT TO REVIEW BY THE ENGINEER AND APPROPRIATE APPROVING AUTHORITY. EXPENSES INCURRED TO BRING THE UNAUTHORIZED CHANGES TO ACCEPTABLE CONFORMANCE SHALL BE BORNE BY THE COMPANY OR CONTRACTOR MAKING THE UNAUTHORIZED CHANGE.
 9. ANY MATERIALS DISCOVERED ON-SITE WHICH ARE NOT SUITABLE FOR USE IN THE PROJECT AS SHOWN ON THIS PLAN SHALL BE REMOVED AND HAULED OFF-SITE TO AN APPROPRIATELY LICENSED FACILITY.
 10. PLANS TO BE REVIEWED BY APPLICABLE UTILITY AGENCIES FOR COMPLIANCE WITH REGULATIONS. FINAL LOCATION IS SUBJECT TO CHANGE.
 11. APPLICANT SHOULD BE AWARE OF OBLIGATIONS TO COMPLY WITH CHAPTER 131, SECTION 40 OF THE MASSACHUSETTS GENERAL LAWS, OTHERWISE KNOWN AS THE WETLANDS PROTECTION ACT, AND THE ASSOCIATED REGULATIONS (310 CMR 10.00).
 12. STOCKPILING OF MATERIAL SHALL NOT BE PERMITTED WITHIN ANY AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT WITHOUT PRIOR APPROVAL BY THE LOCAL CONSERVATION COMMISSION. STOCKPILES SHALL BE PLACED IN A SUITABLE LOCATION AND SURROUNDED BY A ROW OF STAKED HAY BALES FOR EROSION CONTROL.
 13. AREAS OF FILL TO BE COMPACTED TO A MINIMUM 95% DRY DENSITY IN AREAS WITHIN ROADWAYS AND UTILITY EASEMENTS. OTHER AREAS OF FILL TO BE COMPACTED TO A MINIMUM 90% DRY DENSITY. ALL FILL MATERIALS ARE TO BE CLEAN FILL, FREE OF DELETERIOUS MATERIALS AND DEBRIS.
 14. ALL SIDEWALKS AND RAMPS TO CONFORM TO REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA), AS REQUIRED. SEE ARCHITECTURAL PLANS FOR PERFORMANCE REQUIREMENTS FOR PROPOSED BUILDINGS.
 15. THE AREA PROPOSED FOR DEVELOPMENT IS NOT WITHIN A 100 YEAR FLOOD PLAIN PER F.E.M.A. FIRM PANEL #25027C027E, DATED: JULY 4, 2011. COMPLIANCE WITH APPLICABLE REGULATIONS IS REQUIRED.
 16. ALL REINFORCED CONCRETE PILE TO BE CLASS III.
 17. PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 18. ALL UTILITIES ARE TO BE INSTALLED BY A LICENSED UTILITY CONTRACTOR LICENSED BY THE TOWN OF GRAFTON.
 19. LIMITS OF WORK TO MARKED PRIOR TO THE START OF CONSTRUCTION OR SITE CLEARING.
 20. HAULING OF EARTH OR CONSTRUCTION MATERIALS TO OR FROM THE SITE SHALL BE LIMITED TO 8:00 AM TO 4:00 PM ON WEEKDAYS.

NO.	DATE	REVISIONS	BY
7	01/20/21	ISSUED FOR ENDORSEMENT	WDH
6	11/17/20	MEDIATION REVIEW	WDH/CMA
5	3/17/20	BOARD/PEER COMMENTS	WDH/CMA
4	11/18/19	BOARD COMMENTS	WDH/CMA
3	08/09/18	ADDITIONAL BOARD COMMENTS	WDH/CMA
2	04/05/18	ADDITIONAL BOARD COMMENTS	WDH/CMA



HANNIGAN ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS

8 MONUMENT SQUARE
LEONISTEN, MASSACHUSETTS 01453
(978) 534-1234 (T)
(978) 534-6080 (F)
WWW.HANNIGANENGINEERING.COM

SITE UTILITY PLAN
IN
GRAFTON, MASSACHUSETTS

PREPARED FOR:
PRENTICE PLACE, LLC
SOTIR PAPAIOU
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS
TEL: (508) 845-0564

GRAPHIC SCALE: 1"=30'
0 10 20 30 40 50 60 70 80 90 100 110 120 FEET
0 5 10 15 20 25 30 35 METERS

CALC: CMA/WDH	DRWN: CMA/WDH	SCALE: 1"=30'
CHKD: WDH	APPD: WDH	DATE: AUG 23, 2017
SRV: JEF/PJB	FB: E2565.12215	JOB NO: 2565
TAB: 4-UTIL	SHEET 5 OF 13	PLAN NO: C-12-15

SCHEDULE OF SEWER STRUCTURES & ELEVATIONS

FROM	PIPE	TO
BLDG#1 SEW INV=396.50	6" PVC SDR35 L=16 FT S=0.019 F/F	SMH#1 RIM=400.5 INV=396.20 (BLDG#1) INV OUT=396.10
SMH#1 RIM=400.5 INV=396.20 (BLDG#1) INV OUT=396.10	6" DUCT IRON L=63 FT S=0.010 F/F	SMH#2 RIM=400.0 INV=395.45 INV OUT=395.35
SMH#2 RIM=400.0 INV=395.45 INV OUT=395.35	6" DUCT IRON L=158 FT S=0.010 F/F	SMH#3 RIM=397.8 INV=393.80 INV OUT=393.70
SMH#3 RIM=397.8 INV=393.80 INV OUT=393.70	6" PVC SDR35 L=129 FT S=0.010 F/F	SMH#4 RIM=402.1 INV=393.45 (CO) INV=392.45 (CO) INV OUT=392.35
SMH#4 RIM=402.1 INV=393.45 (CO) INV=392.45 (CO) INV OUT=392.35	6" PVC SDR35 L=38 FT S=0.009 F/F	SMH#5 RIM=399.2 INV=392.04 (EX) INV=392.04 (NEW) INV OUT=391.84
SMH#5 RIM=399.2 INV=392.04 (EX) INV=392.04 (NEW) INV OUT=391.84	6" PVC L=48 FT S=0.008 F/F (EXISTING)	EX-SMH-B RIM=393.91 INV=397.16
BLDG#2 SEW INV=397.0	6" PVC SDR35 L=38 FT S=0.016 F/F	SMH#6 (DROP) RIM=400.9 INV=396.40 (BLDG#2/3) INV OUT=394.70
BLDG#3 SEW INV=397.0	6" PVC SDR35 L=12 FT S=0.051 F/F	SMH#7 (DROP) RIM=400.9 INV=396.40 (BLDG#2/3) INV OUT=394.70
SMH#6 (DROP) RIM=400.9 INV=396.40 (BLDG#2/3) INV OUT=394.70	6" PVC SDR35 L=40 FT S=0.022 F/F	SMH#8 RIM=397.8 INV=393.80 INV OUT=393.70

SCHEDULE OF DRAINAGE STRUCTURES & ELEVATIONS

FROM	PIPE	TO
DCB#1 RIM=396.04 INV=392.84 SUMP=388.84 (GRANITE CURB INLET)	12" HDPE L=14 FT S=0.014 F/F	DMH#1 RIM=397.54 INV=392.64 (DCB#1) INV=391.14 (DMH#2) INV=391.04 (OUT)
DCB#2 RIM=398.44 INV=395.54 SUMP=391.54 (GRANITE CURB INLET)	12" HDPE L=32 FT S=0.026 F/F	DMH#7 RIM=398.54 INV=395.04 (DCB#2/3) INV=394.94 (OUT)
DCB#3 RIM=398.44 INV=395.54 SUMP=391.54 (SINGLE GRATE)	12" HDPE L=32 FT S=0.019 F/F	DMH#7 RIM=398.54 INV=395.04 (DCB#2/3) INV=394.94 (OUT)
DCB#4 RIM=400.94 INV=397.34 SUMP=394.34 (SINGLE INLET)	12" HDPE L=6 FT S=0.033 F/F	DMH#4 RIM=400.84 INV=397.14 (DCB#4) INV=396.24 (CO#1) INV=396.24 (DCB#5) INV=396.14 (OUT)
DCB#5 RIM=400.94 INV=397.34 SUMP=394.34 (BEEHIVE GRATE)	12" HDPE L=109 FT S=0.010 F/F	DMH#4 RIM=400.84 INV=397.14 (DCB#4) INV=396.24 (CO#1) INV=396.24 (DCB#5) INV=396.14 (OUT)
YD#1 RIM=402.44 INV=398.54	8" PVC L=52 FT S=0.023 F/F	CO#1 RIM=402.754 INV=397.254 (YD#1/2) INV=397.104 (OUT)
YD#2 RIM=402.54 INV=398.04	8" PVC L=35 FT S=0.021 F/F	CO#1 RIM=402.754 INV=397.254 (YD#1/2) INV=397.104 (OUT)
YD#3 RIM=399.54 INV=397.24	8" PVC L=70 FT S=0.043 F/F	DMH#3 RIM=399.84 INV=394.24 (DMH#4) INV=394.24 (YD#3) INV=394.14 (OUT)
CO#1 RIM=402.754 INV=397.254 (YD#1/2) INV=397.104 (OUT)	8" PVC L=70 FT S=0.043 F/F	DMH#4 RIM=400.84 INV=397.14 (DCB#4) INV=396.24 (CO#1) INV=396.24 (DCB#5) INV=396.14 (OUT)
DMH#1 RIM=397.54 INV=392.64 (DCB#1) INV=391.14 (DMH#2) INV=391.04 (OUT)	15" HDPE L=72 FT S=0.049 F/F	DMH#8 (WOU) RIM=397.54 INV=397.54 (DMH#1) INV=397.254 (OUT) HYDROWORKS H66
DMH#2 RIM=397.84 INV=393.80 (DMH#3) INV=391.14 (DMH#2) INV=392.94 (OUT)	15" HDPE L=32 FT S=0.056 F/F	DMH#1 RIM=397.54 INV=392.64 (DCB#1) INV=391.14 (DMH#2) INV=391.04 (OUT)
DMH#3 RIM=399.84 INV=394.24 (DMH#4) INV=394.24 (YD#3) INV=394.14 (OUT)	15" HDPE L=86 FT S=0.013 F/F	DMH#2 RIM=397.94 INV=393.04 (DMH#3) INV=392.04 (DMH#7) INV=392.94 (OUT)

SCHEDULE OF DRAINAGE STRUCTURES & ELEVATIONS

FROM	PIPE	TO
DMH#4 RIM=400.84 INV=397.14 (DCB#4) INV=396.24 (CO#1) INV=396.24 (DCB#5) INV=396.14 (OUT)	12" HDPE L=73 FT S=0.026 F/F	DMH#8 RIM=397.94 INV=394.24 (DMH#4) INV=394.24 (YD#3) INV=394.14 (OUT)
DMH#7 RIM=398.54 INV=395.04 (DCB#2/3) INV=394.94 (OUT)	12" HDPE L=38 FT S=0.050 F/F	DMH#2 RIM=397.84 INV=393.04 (DMH#3) INV=393.04 (DMH#7) INV=392.94 (OUT)
DMH#8 (WOU) RIM=397.54 INV=397.254 (DMH#1) INV=397.254 (OUT) HYDROWORKS H66	15" HDPE L=40 FT S=0.048 F/F	FE#1 RIM=395.34
CO#1 RIM=402.754 INV=397.254 (YD#1/2) INV=397.104 (OUT)	15" RCP L=36 FT S=0.008 F/F	DMH#5 RIM=398.04 INV=392.54 (CO#1) INV=392.54 (DMH-A) INV=392.44 (OUT)
DMH-A (REBUILT) RIM=393.15 INV=393.04 (DCB-A) INV=392.54 (DMH-A) INV=392.04 (OUT)	12" RCP L=13 FT S=0.046 F/F	DMH-A (REBUILT) RIM=396.56 INV=393.04 (DCB-A) INV=392.54 (DMH-A) INV=392.04 (OUT)
DMH-B (REBUILT) RIM=393.15 INV=393.04 (DCB-B) INV=392.54 (DMH-B) INV=392.04 (OUT)	12" RCP L=178 FT S=0.054 F/F	DMH#5 RIM=398.04 INV=392.54 (CO#1) INV=392.54 (DMH-A) INV=392.44 (OUT)
DMH-B (REBUILT) RIM=393.15 INV=393.04 (DCB-B) INV=392.54 (DMH-B) INV=392.04 (OUT)	15" RCP L=55 FT S=0.053 F/F	DMH-B (REBUILT) RIM=393.15 INV=393.04 (DCB-B) INV=392.54 (DMH-B) INV=392.04 (OUT)
DMH-C (REBUILT) RIM=393.15 INV=393.04 (DCB-C) INV=392.54 (DMH-C) INV=392.04 (OUT)	15" RCP L=41 FT S=0.078 F/F	DMH#6 RIM=392.24 INV=392.24 (DMH-B) INV=392.24 (DMH-C) INV=392.14 (OUT)
INLET-A RIM=390.54	12" RCP L=5 FT S=0.140 F/F	DCB#5 RIM=393.04 INV=393.04 (IN) SUMP=375.74

DOMESTIC SEWER CALCULATIONS

14 UNITS (HOUSE) PER BUILDING
14 UNITS x 3.5 PERSON/UNIT = 49 PERSONS
49 PERSONS x 55 GPD/PERSON = 2,695 GPD
PEAK FACTOR = 2.695 GPD x 3.5 = 9,432.5 GPD
TOTAL SEWAGE FLOW PER BUILDING = 9,432.5 GPD
TOTAL SEWAGE FLOW FOR SITE = 28,298 GPD

1/1 SEWAGE CALCULATIONS

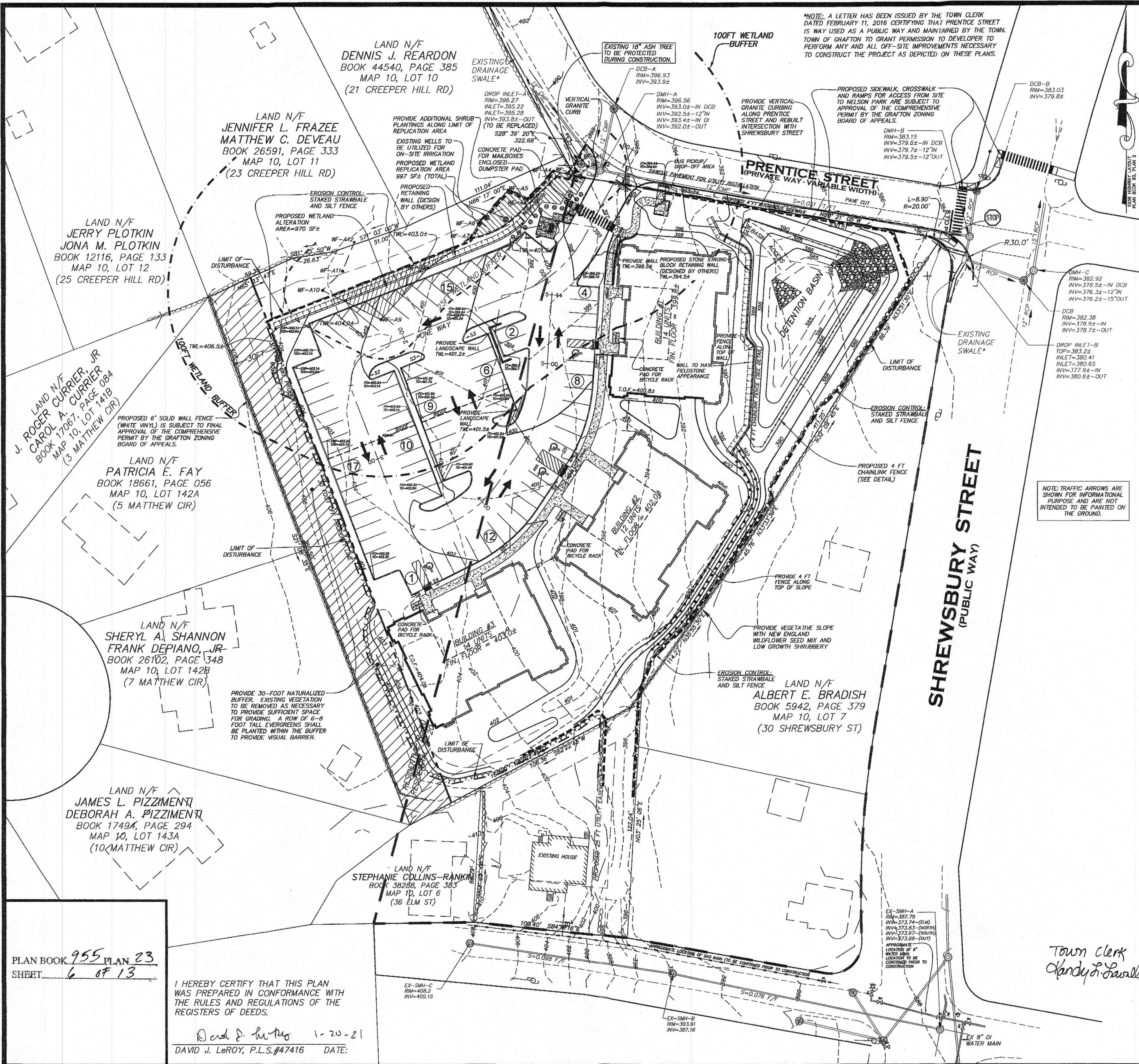
6" DIAMETER PIPE = 285 FT (0.05 MI)
8" DIAMETER PIPE = 207 FT (0.04 MI)
6" 1/1 = 1,500 GPD x 0.05 MI x 6" = 450 GPD
8" 1/1 = 1,500 GPD x 0.04 MI x 8" = 480 GPD

Town Clerk Kandy S. Saville

APPLICANT
PRENTICE PLACE, LLC
C/O SOTIR PAPAIOU
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545

APPROVAL PURSUANT TO CH. 40 B §20.23
GRAFTON BOARD OF APPEALS

DATE: 2/22/21
CHAIR
Tina Jeanne Reed

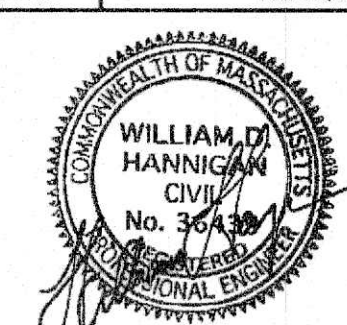


PROJECT INFORMATION

LAND INFORMATION		
MAP/PARCEL:	10/8	
DEED BOOK/PAGE:	53726/59	
FRONTAGE:	257.35 FT	
PROPOSED AREA:	2.56 ACRES±	
ZONING INFORMATION		
ZONING DISTRICT:	RESIDENTIAL SPLIT (R20/R40)	RESIDENTIAL (R40)
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MINIMUM AREA:	20,000 SF (0.46 AC±)	40,000 SF (0.92 AC±)
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 11. APPLICANT SHOULD BE AWARE OF OBLIGATIONS TO COMPLY WITH CHAPTER 13J, SECTION 40 OF THE MASSACHUSETTS GENERAL LAWS, OTHERWISE KNOWN AS THE WETLANDS PROTECTION ACT, AND THE ASSOCIATED REGULATIONS (310 CMR 10.00).
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 13. AREAS OF FILL TO BE COMPACTED TO A MINIMUM 95% DRY DENSITY IN AREAS WITHIN ROADWAYS AND UTILITY EASEMENTS. OTHER AREAS OF FILL TO BE COMPACTED TO A MINIMUM 90% DRY DENSITY. ALL FILL MATERIALS ARE TO BE CLEAN FILL, FREE OF DELETERIOUS MATERIALS AND DEBRIS.
 14. ALL SIDEWALKS AND RAMPS TO CONFORM TO REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA), AS REQUIRED. SEE ARCHITECTURAL PLANS FOR CONFORMANCE REQUIREMENTS FOR PROPOSED BUILDINGS.
 15. THE AREA PROPOSED FOR DEVELOPMENT IS NOT WITHIN A 100 YEAR FLOOD PLAIN PER F.E.M.A. FIRM PANEL #25027C0827E, DATED: JULY 4, 2011. COMPLIANCE WITH APPLICABLE REGULATIONS IS REQUIRED.
 16. ALL REINFORCED CONCRETE PIPE, TO BE CLASS III.
 17. PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 18. ALL UTILITIES ARE TO BE INSTALLED BY A LICENSED UTILITY CONTRACTOR LICENSED BY THE TOWN OF GRAFTON.
 19. LIMITS OF WORK TO MARKED PRIOR TO THE START OF CONSTRUCTION OR SITE CLEARING.
 20. HAULING OF EARTH OR CONSTRUCTION MATERIALS TO OR FROM THE SITE SHALL BE LIMITED TO 8:00 AM TO 4:00 PM ON WEEKDAYS.

NO.	DATE	REVISIONS	BY
7	01/20/21	ISSUED FOR ENDORSEMENT	WDH
6	11/17/20	MEDIATION REVIEW	WDH/CMA
5	3/17/20	BOARD/PEER COMMENTS	WDH/CMA
4	11/18/19	BOARD COMMENTS	WDH/CMA
3	08/09/18	ADDITIONAL BOARD COMMENTS	WDH/CMA
2	04/05/18	ADDITIONAL BOARD COMMENTS	WDH/CMA



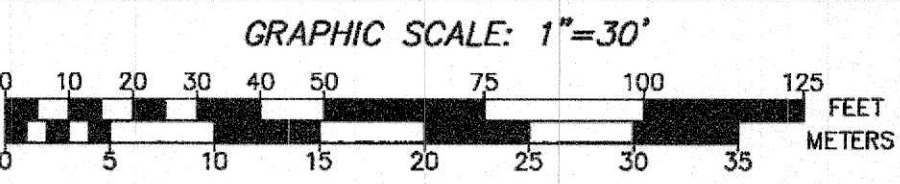
HANNIGAN ENGINEERING, INC.

CIVIL ENGINEERS & LAND SURVEYORS

8 MONUMENT SQUARE (978) 534-1234 (T)
LEOMINSTER, MASSACHUSETTS 01453 (978) 534-6060 (F)
WWW.HANNIGANENGINEERING.COM

SITE GRADING PLAN IN GRAFTON, MASSACHUSETTS

PREPARED FOR:
PRENTICE PLACE, LLC
SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS
TEL: (508) 845-0564



CALC:	CMA/WDH	DRWN:	CMA/WDH	SCALE:	1"=30'
CHKD:	WDH	APPD:	WDH	DATE:	AUG 23, 2017
SRV:	JEF/PJB	FB:	E2565.122115	JOB NO:	2565
TAB:	S-GRAD	SHEET	6 OF 13	PLAN NO:	C-12-15

PROJECT NOTES:

REFERENCE IS MADE TO ORDER OF CONDITIONS ISSUED BY THE TOWN OF GRAFTON CONSERVATION COMMISSION UNDER DEP FILE #164-0991 ISSUED ON OCTOBER 1, 2020 AND RECORDED IN THE WORCESTER SOUTH COUNTY REGISTRY OF DEEDS (BOOK 63563, PAGE 370).

THIS PROJECT IS SUBJECT TO A DECISION RELATIVE TO APPLICATION FOR A COMPREHENSIVE PERMIT ISSUED BY THE TOWN OF GRAFTON ZONING BOARD OF APPEALS ON MARCH, 17 2020 PER G.L.c.40B, §20-23. THIS DECISION IS RECORDED IN THE WORCESTER SOUTH COUNTY REGISTRY OF DEEDS (BOOK 62471, PAGE 311).

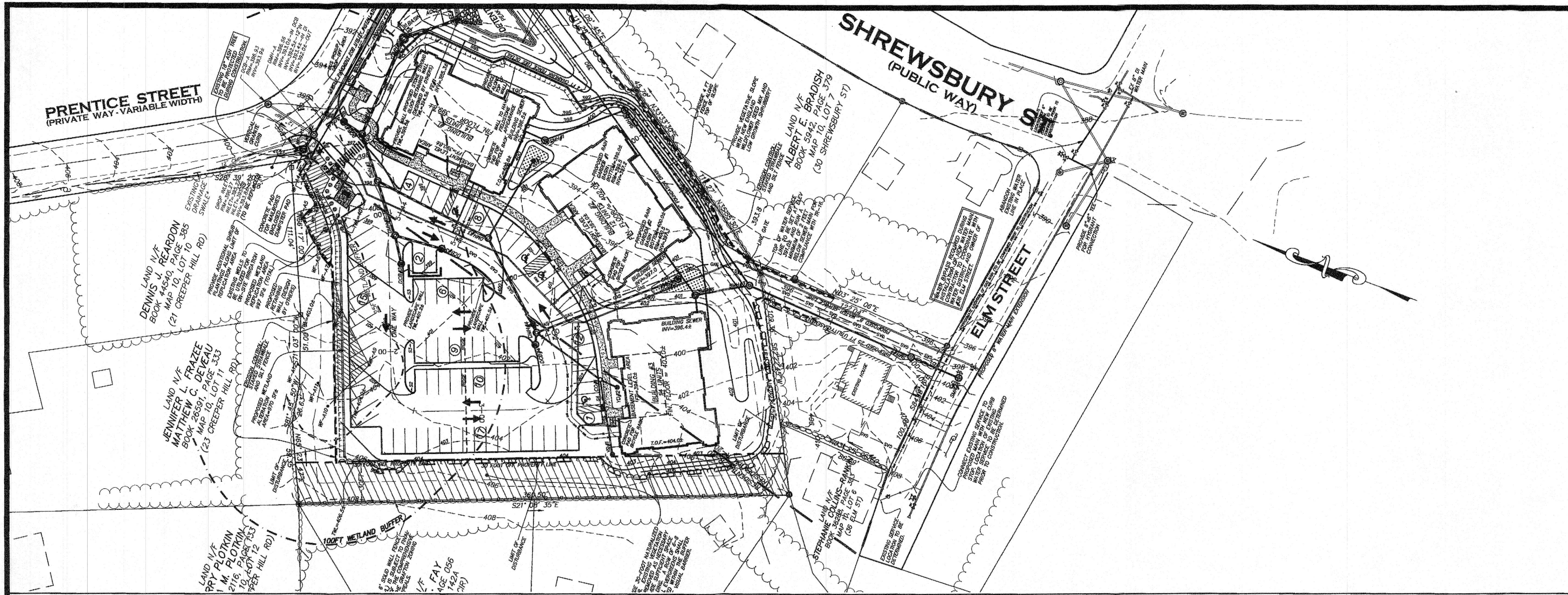
ROADWAYS AND DRIVEWAYS WITHIN PROJECT SCOPE MAY OR MAY NOT CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE PLANNING BOARD'S SUBDIVISION RULES AND REGULATIONS.

APPLICANT:
PRENTICE PLACE, LLC
C/O SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545

APPROVAL PURSUANT TO CH. 40 B §20.23
GRAFTON BOARD OF APPEALS

DATE: 2/22/21
CHAIR

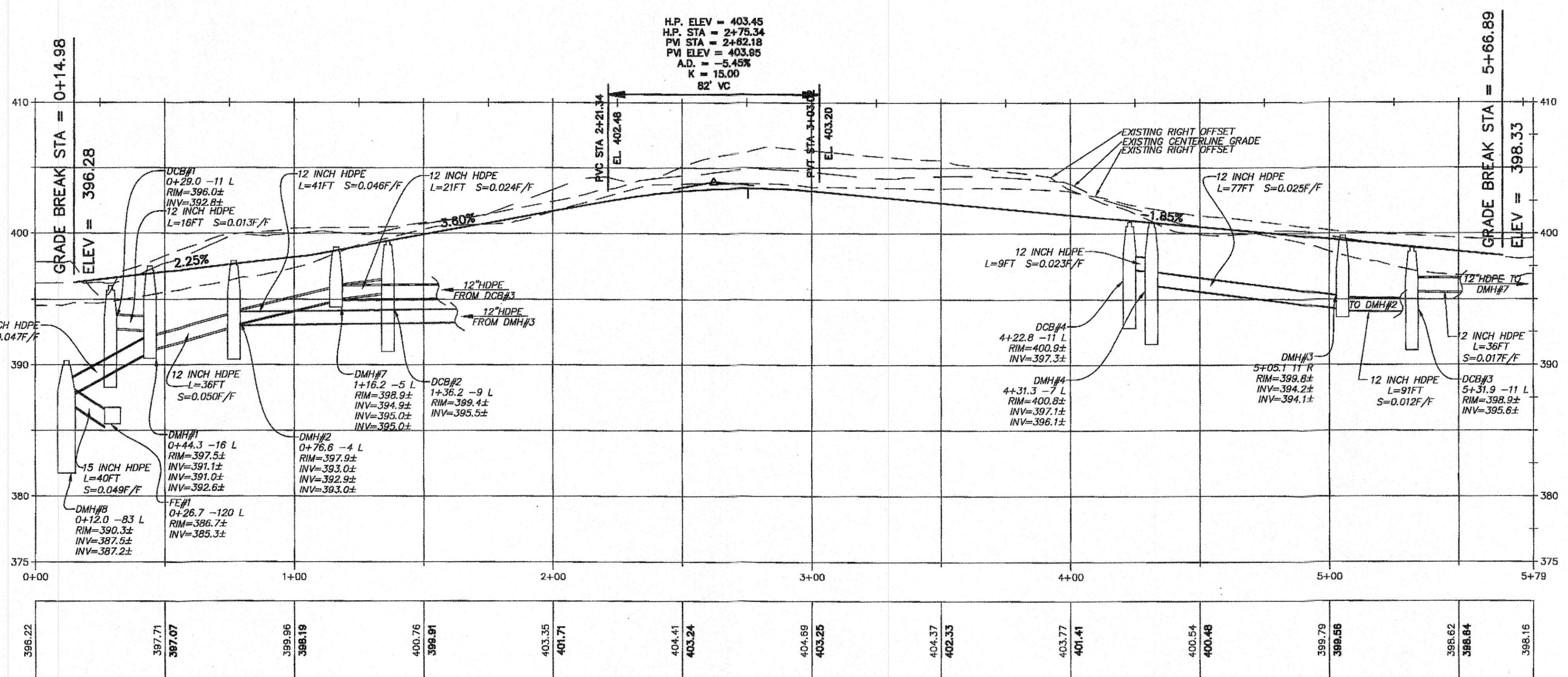
Town Clerk
Candy L. Saville



PROJECT INFORMATION

LAND INFORMATION	
MAP/PARCEL:	10/8
DEED BOOK/PAGE:	53726/58
FRONTAGE:	257.35 FT
PROPOSED AREA:	2.58 ACRES
ZONING INFORMATION	
ZONING DISTRICT:	RESIDENTIAL SPLIT (R20/R40)
DIMENSIONAL REQUIREMENTS:	RESIDENTIAL (R20) RESIDENTIAL (R40)
MINIMUM AREA:	20,000 SF (0.46AC±) 40,000 SF (0.92 AC±)
MINIMUM FRONTAGE:	125 FEET 140 FEET
MINIMUM HEIGHT:	35 FEET 35 FEET
MINIMUM SETBACKS:	
FRONT YARD:	30 FT 30 FT
SIDE YARD:	15 FT 15 FT
REAR YARD:	15 FT 15 FT
MINIMUM LOT WIDTH:	140 FT 140 FT
BUILDING COVERAGE:	30% (MAX) 30% (MAX)

- GENERAL NOTES:**
1. PROPERTY LINE INFORMATION IS BASED ON A PROPERTY LINE SURVEY PERFORMED BY HANNIGAN ENGINEERING, INC. TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ON-THE-GROUND TOPOGRAPHIC SURVEY BY HANNIGAN ENGINEERING, INC. IN JANUARY OF 2016.
 2. AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT HAVE BEEN DELINEATED BY CARON ENVIRONMENTAL CONSULTING ON JAN. 5, 2016 AND APPROVED BY THE GRAFTON CONSERVATION COMMISSION WITH AN ORDER OF RESOURCE AREA DELINEATION ISSUED ON JULY 21, 2017.
 3. LOCATION OF ALL UTILITIES ARE APPROXIMATE AS SHOWN AND BASED UPON VISIBLE STRUCTURES AT THE TIME OF THE FIELD SURVEY. LOCATION OF EXISTING UTILITIES AND SUBSURFACE STRUCTURES, WHETHER OR NOT SHOWN ON THESE PLANS, SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE AWARE OF THE OBLIGATION TO ALL UTILITY COMPANIES AND AGENCIES AS WELL AS DIG-SAFE PRIOR TO EXCAVATION. (1-BBS-DIG SAFE)
 4. NOTIFICATION REQUIREMENTS SHOWN ON THIS PLAN SHALL NOT RELIEVE THE CONTRACTOR OF ANY OTHER REQUIREMENTS WHICH MAY EXIST UNDER LOCAL, STATE, OR FEDERAL JURISDICTION TO WHICH THE CONTRACTOR IS OBLIGATED.
 5. RELOCATION OF AND/OR CONNECTION TO EXISTING UTILITIES SHALL BE PERFORMED IN ACCORDANCE WITH PROVISIONS OF THE APPROPRIATE UTILITY COMPANY AND/OR REGULATORY AGENCY.
 6. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF THE TOWN OF GRAFTON AND THE MASS DOT SPECIFICATIONS OF HIGHWAYS AND BRIDGES.
 7. ALL SLOPES UNLESS OTHERWISE SPECIFIED, SHALL BE LOADED AND SEEDED FOR STABILIZATION.
 8. ANY DEVIATIONS IN DESIGN AS SHOWN SHALL REQUIRE A REVIEW AND APPROVAL OF THE DESIGN ENGINEER OR FIRM. CHANGES MADE IN THE FIELD MADE WITHOUT AUTHORIZATION SHALL BE SUBJECT TO REVIEW BY THE ENGINEER AND APPROPRIATE APPROVING AUTHORITY. EXPENSES INCURRED TO BRING THE UNAUTHORIZED CHANGES TO ACCEPTABLE CONFORMANCE SHALL BE BORNE BY THE COMPANY OR CONTRACTOR MAKING THE UNAUTHORIZED CHANGE.
 9. ANY MATERIALS DISCOVERED ON-SITE WHICH ARE NOT SUITABLE FOR USE IN THE PROJECT AS SHOWN ON THIS PLAN SHALL BE REMOVED AND HAILED OFF-SITE TO AN APPROPRIATELY LICENSED FACILITY.
 10. PLANS TO BE REVIEWED BY APPLICABLE UTILITY AGENCIES FOR COMPLIANCE WITH REGULATIONS. FINAL LOCATION IS SUBJECT TO CHANGE.
 11. APPLICANT SHOULD BE AWARE OF OBLIGATIONS TO COMPLY WITH CHAPTER 13A, SECTION 40 OF THE MASSACHUSETTS GENERAL LAWS, OTHERWISE KNOWN AS THE WETLANDS PROTECTION ACT, AND THE ASSOCIATED REGULATIONS (310 CMR 10.00).
 12. STOCKPILING OF MATERIAL SHALL NOT BE PERMITTED WITHIN ANY AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT WITHOUT PRIOR APPROVAL BY THE LOCAL CONSERVATION COMMISSION. STOCKPILES SHALL BE PLACED IN A SUITABLE LOCATION AND SURROUNDED BY A ROW OF STAKED HAY BALES FOR EROSION CONTROL.
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 14. ALL SIDEWALKS AND RAMPS TO CONFORM TO REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA), AS REQUIRED. SEE ARCHITECTURAL PLANS FOR CONFORMANCE REQUIREMENTS FOR PROPOSED BUILDINGS.
 15. THE AREA PROPOSED FOR DEVELOPMENT IS NOT WITHIN A 100 YEAR FLOOD PLAIN PER F.E.M.A. FROM PANEL #20027C0827, DATED: JULY 4, 2011. COMPLIANCE WITH APPLICABLE REGULATIONS IS REQUIRED.
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 17. PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
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ROADWAYS AND DRIVEWAYS WITHIN PROJECT SCOPE MAY OR MAY NOT CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE PLANNING BOARD'S SUBDIVISION RULES AND REGULATIONS.

APPLICANT
PRENTICE PLACE, LLC
C/O SOTIR PAPALIO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545

APPROVAL PURSUANT TO CH. 40 B §20.23
GRAFTON BOARD OF APPEALS
DATE: 2/22/24
CHAIR

Town Clerk
Hardy D. Lascaris

PLAN BOOK 955 PLAN 23
SHEET 7 OF 13

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

David J. LeRoy, P.L.S. #47416 1-20-24
DATE:

ROADWAY PROFILE

HORIZONTAL SCALE = 1"=30'
VERTICAL SCALE = 1"=6'

HANNIGAN ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS

8 MONUMENT SQUARE
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(978) 534-1234 (T)
(978) 534-6060 (F)
WWW.HANNIGANENGINEERING.COM

ROADWAY PROFILE

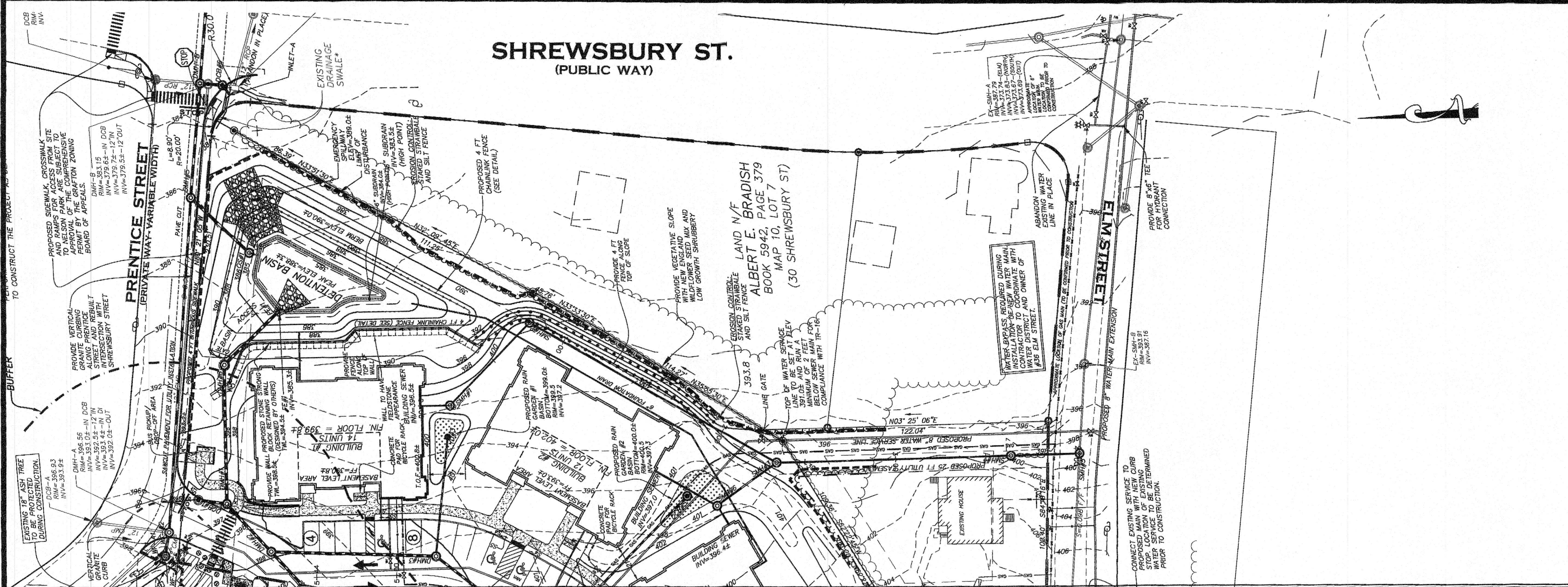
IN
GRAFTON, MASSACHUSETTS

PREPARED FOR:
PRENTICE PLACE, LLC
SOTIR PAPALIO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS
TEL: (508) 845-0564

GRAPHIC SCALE: 1"=30'

CALC: CMA/WDH	DRWN: CMA/WDH	SCALE: 1"=30'
CHKD: WDH	APPD: WDH	DATE: AUG 23, 2017
SRV: JEF/PJB	FB: E2565.122115	JOB NO: 2565
TAB: 6-PROF	SHEET 6 OF 13	PLAN NO: C-12-15

SHREWSBURY ST. (PUBLIC WAY)



PROJECT INFORMATION

LAND INFORMATION		
MAP/PARCEL:	10/B	
DEED BOOK/PAGE:	53726/58	
FRONTAGE:	257.35 FT	
PROPOSED AREA:	2.59 ACRES±	
ZONING INFORMATION		
ZONING DISTRICT:	RESIDENTIAL SPLIT (R20/R40)	
MINIMUM AREA:	20,000 SF (0.46AC±)	40,000 SF (0.92 AC±)
MINIMUM FRONTAGE:	125 FEET	140 FEET
MINIMUM HEIGHT:	35 FEET	35 FEET
MINIMUM SETBACKS:		
FRONT YARD:	30 FT	30 FT
SIDE YARD:	15 FT	15 FT
REAR YARD:	15 FT	15 FT
MINIMUM LOT WIDTH:	140 FT	140 FT
BUILDING COVERAGE:	30% (MAX)	30% (MAX)

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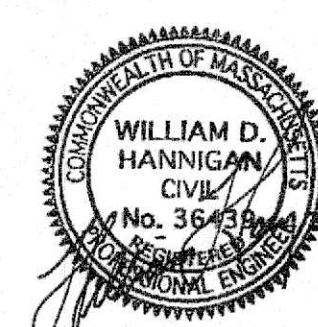
APPLICANT
PRENTICE PLACE, LLC
C/O SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545

APPROVAL PURSUANT TO CH. 40 B §20.23
GRAFTON BOARD OF APPEALS

DATE: 2/22/21
CHAIR

Town Clerk
Handy L. Saville
[Signature]

NO.	DATE	REVISIONS	BY
7	01/20/21	ISSUED FOR ENDORSEMENT	WDH
6	11/17/20	MEDIATION REVIEW	WDH/CMA
5	3/17/20	BOARD/PEER COMMENTS	WDH/CMA
4	11/18/19	BOARD COMMENTS	WDH/CMA
3	08/09/18	ADDITIONAL BOARD COMMENTS	WDH/CMA
2	04/05/18	ADDITIONAL BOARD COMMENTS	WDH/CMA



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CIVIL ENGINEERS & LAND SURVEYORS

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(978) 534-1234 (T)
(978) 534-0080 (F)
WWW.HANNIGANENGINEERING.COM

SEWER PROFILE IN GRAFTON, MASSACHUSETTS

PREPARED FOR:
PRENTICE PLACE, LLC
SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS
TEL: (508) 845-0564

GRAPHIC SCALE: 1"=30'
0 10 20 30 40 50 75 100 125 FEET
0 5 10 15 20 25 30 35 METERS

CALC: CMA/WDH	DRWN: CMA/WDH	SCALE: 1"=30'
CHKD: WDH	APPD: WDH	DATE: AUG 23, 2017
SRV: JEF/PJB	FB: E2565.122115	JOB NO: 2565
TAB: 7-SEWPROF	SHEET 8 OF 13	PLAN NO: C-12-15

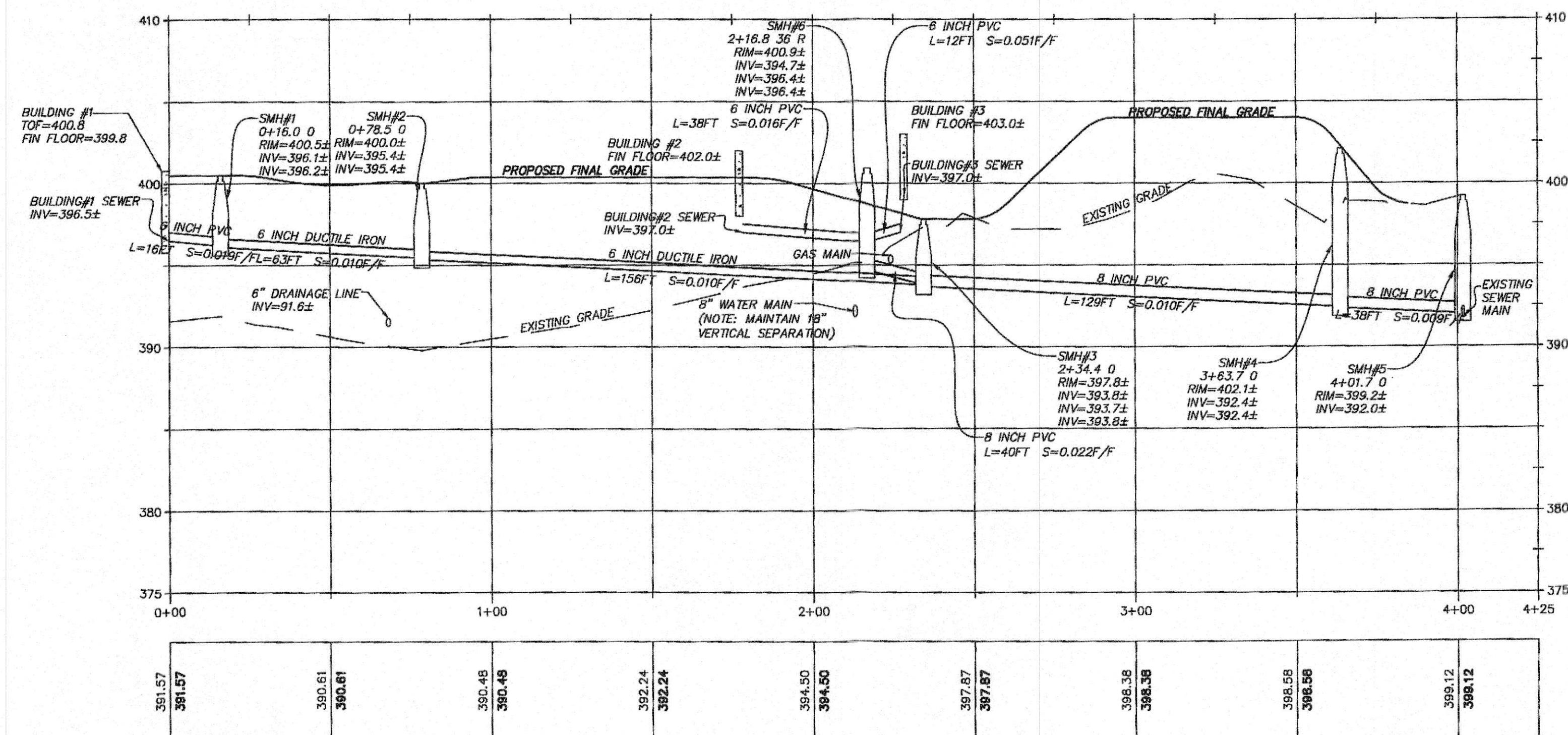
PLAN BOOK 955 PLAN 23
SHEET 8 OF 13

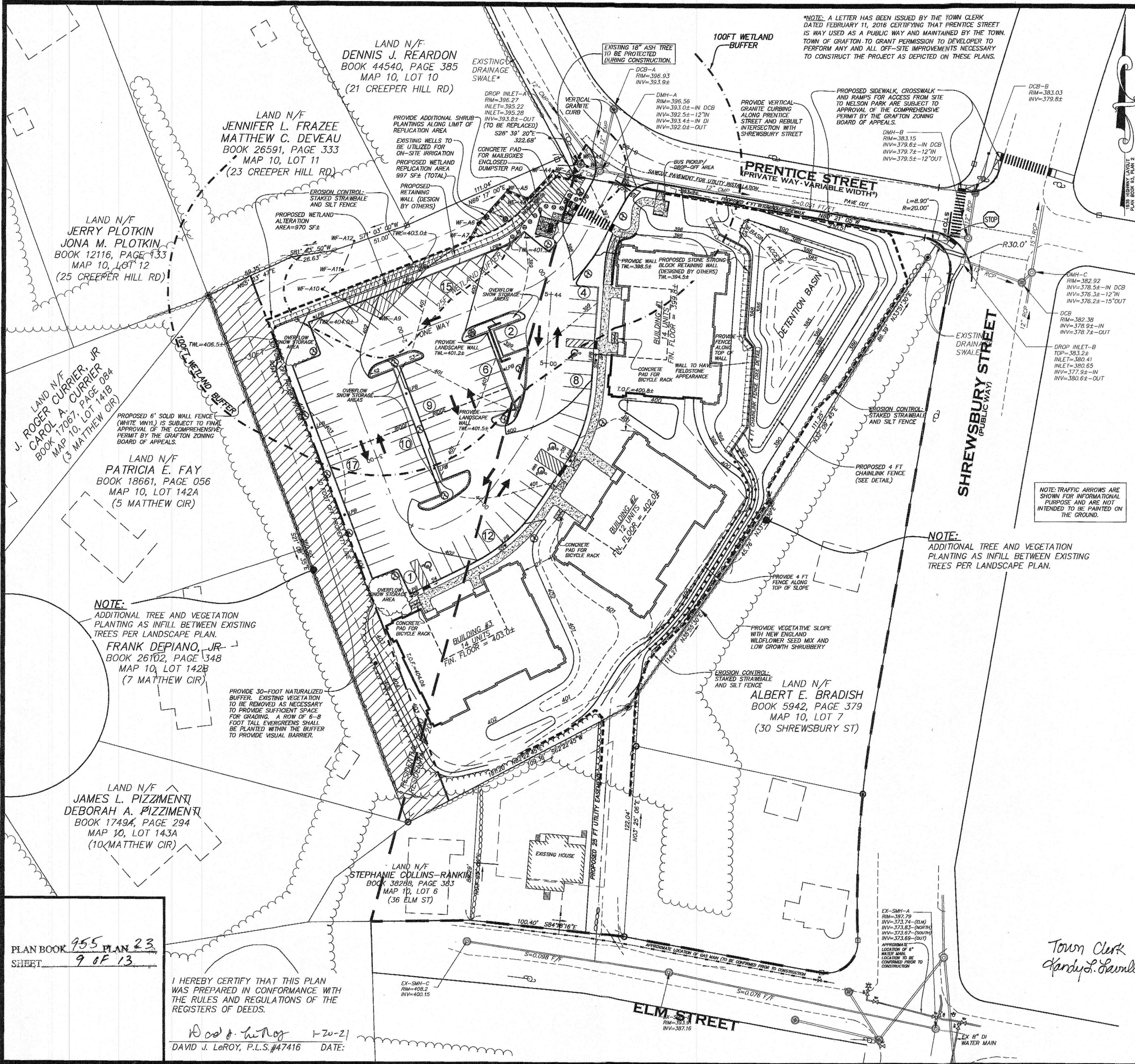
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

David J. LeRoy 1-20-21
DAVID J. LeROY, P.L.S.#47416 DATE:

SEWER PROFILE

HORIZONTAL SCALE = 1"=30'
VERTICAL SCALE = 1"=6'





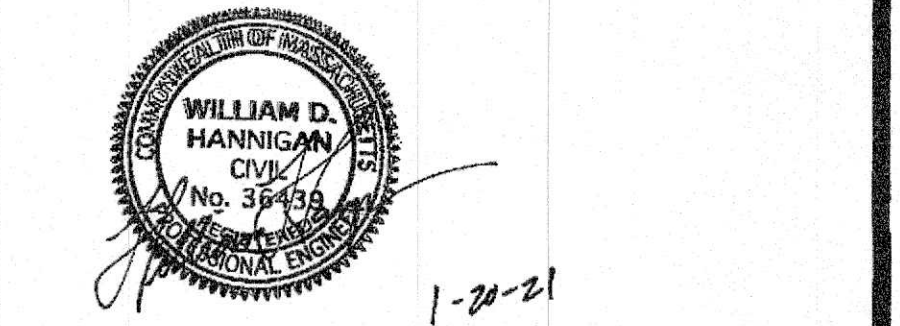
PROJECT INFORMATION

LAND INFORMATION	
MAP/PARCEL:	10/8
DEED BOOK/PAGE:	53726/58
FRONTAGE:	257.35 FT
PROPOSED AREA:	2.56 ACRES±

ZONING INFORMATION	
ZONING DISTRICT:	RESIDENTIAL SPLIT (R20/R40)
DIMENSIONAL REQUIREMENTS:	RESIDENTIAL (R20)
MINIMUM AREA:	20,000 SF (0.46AC±)
MINIMUM FRONTAGE:	125 FEET
MINIMUM HEIGHT:	35 FEET
MINIMUM SETBACKS:	
FRONT YARD:	30 FT
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BUILDING COVERAGE:	30% (MAX)

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 13. AREAS OF FILL TO BE COMPACTED TO A MINIMUM 95% DRY DENSITY IN AREAS WITHIN ROADWAYS AND UTILITY EASEMENTS. OTHER AREAS OF FILL TO BE COMPACTED TO A MINIMUM 90% DRY DENSITY. ALL FILL MATERIALS ARE TO BE CLEAN FILL, FREE OF DELETERIOUS MATERIALS AND DEBRIS.
 14. ALL SIDEWALKS AND RAMPS TO CONFORM TO REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA), AS REQUIRED. SEE ARCHITECTURAL PLANS FOR CONFORMANCE REQUIREMENTS FOR PROPOSED BUILDINGS.
 15. THE AREA PROPOSED FOR DEVELOPMENT IS NOT WITHIN A 100 YEAR FLOOD PLAIN PER F.E.M.A. FIRM PANEL #2502700827E, DATED: JULY 4, 2011. COMPLIANCE WITH APPLICABLE REGULATIONS IS REQUIRED.
 16. ALL REINFORCED CONCRETE PIPE TO BE CLASS II.
 17. PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 18. ALL UTILITIES ARE TO BE INSTALLED BY A LICENSED UTILITY CONTRACTOR LICENSED BY THE TOWN OF GRAFTON.
 19. LIMITS OF WORK TO MARKED PRIOR TO THE START OF CONSTRUCTION OR SITE CLEARING.
 20. HAULING OF EARTH OR CONSTRUCTION MATERIALS TO OR FROM THE SITE SHALL BE LIMITED TO 8:00 AM TO 4:00 PM ON WEEKDAYS.

NO.	DATE	REVISIONS	BY
7	01/20/21	ISSUED FOR ENDORSEMENT	WDH
6	11/17/20	MEDIATION REVIEW	WDH/CMA
5	3/17/20	BOARD/PEER COMMENTS	WDH/CMA
4	11/18/19	BOARD COMMENTS	WDH/CMA
3	08/09/18	ADDITIONAL BOARD COMMENTS	WDH/CMA
2	04/05/18	ADDITIONAL BOARD COMMENTS	WDH/CMA



HANNIGAN ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS

8 MONUMENT SQUARE (978) 534-1234 (T)
LEOMINSTER, MASSACHUSETTS 01453 (978) 534-6060 (F)
WWW.HANNIGANENGINEERING.COM

LANDSCAPE & TREE PLAN
IN
GRAFTON, MASSACHUSETTS

PREPARED FOR:
PRENTICE PLACE, LLC
SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS
TEL: (508) 845-0564

GRAPHIC SCALE: 1"=30'
0 10 20 30 40 50 75 100 125 FEET
0 5 10 15 20 25 30 35 METERS

CALC:	CMA/WDH	DRWN:	CMA/WDH	SCALE:	1"=30'
CHKD:	WDH	APPD:	WDH	DATE:	AUG 23, 2017
SRV:	JEF/PJB	FB:	E2565.122115	JOB NO:	2565
TAB:	B-LAND	SHEET	9 OF 13	PLAN NO:	C-12-15

PROJECT NOTES:

REFERENCE IS MADE TO ORDER OF CONDITIONS ISSUED BY THE TOWN OF GRAFTON CONSERVATION COMMISSION UNDER DEP FILE #164-0991 ISSUED ON OCTOBER 1, 2020 AND RECORDED IN THE WORCESTER SOUTH COUNTY REGISTRY OF DEEDS (BOOK 63563, PAGE 370).

THIS PROJECT IS SUBJECT TO A DECISION RELATIVE TO APPLICATION FOR A COMPREHENSIVE PERMIT ISSUED BY THE TOWN OF GRAFTON ZONING BOARD OF APPEALS ON MARCH, 17 2020 PER G.L.c.40B, §20-23. THIS DECISION IS RECORDED IN THE WORCESTER SOUTH COUNTY REGISTRY OF DEEDS (BOOK 62471, PAGE 311).

ROADWAYS AND DRIVEWAYS WITHIN PROJECT SCOPE MAY OR MAY NOT CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE PLANNING BOARD'S SUBDIVISION RULES AND REGULATIONS.

APPLICANT
PRENTICE PLACE, LLC
C/O SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545

APPROVAL PURSUANT TO CH. 40 B §20.23
GRAFTON BOARD OF APPEALS
DATE: 2/22/21
CHAIR
[Signature]

Town Clerk
[Signature]

DAVID J. LeROY, P.L.S. #47416 DATE: 1-20-21

EROSION & SEDIMENTATION CONTROL PLAN

GENERAL:

1. THE PURPOSE OF THIS PLAN IS TO PRESENT A PREVENTIVE METHOD OF CONSTRUCTION TO MINIMIZE THE IMPACT OF THE CONSTRUCTION ACTIVITIES UPON WETLAND AND OTHER SENSITIVE AREAS. THE DATA CONTAINED ON THIS PLAN IS INTENDED TO SUPPLEMENT THE DEVELOPER OR CONTRACTOR'S EXPERTISE AND IS NOT MEANT TO CIRCUMVENT LOGICAL DECISIONS REQUIRED BY A VARIETY OF FIELD CONDITIONS INCLUDING WEATHER AND THE TYPE OF EQUIPMENT AVAILABLE TO THE CONTRACTOR.

2. THE CONTRACTOR IS TO BE AWARE OF THE REQUIREMENTS AND OBLIGATIONS TO COMPLY WITH CHAPTER 131, SECTION 40 OF THE MASSACHUSETTS GENERAL LAWS, OTHERWISE KNOWN AS THE WETLANDS PROTECTION ACT, AND ITS ASSOCIATED REGULATIONS (310 CMR 10.00). CERTAIN PERMITS IN THE FORM OF AN ORDER OF CONDITIONS, OR OTHER FORMAT, MAY BE REQUIRED FOR THE CONSTRUCTION AS DEPICTED ON THIS PLAN. THESE PERMITS SHALL BE REVIEWED AND ADHERED TO BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL ALSO MAINTAIN COPIES OF ALL PERMITS ON SITE AT ALL TIMES.

3. IF CHANGES IN THE PROJECT ARE REQUIRED DUE TO FIELD CONDITIONS THE DEVELOPER/CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER FOR REVIEW OF THESE CONDITIONS UPON REVIEW, AND PRIOR TO THE IMPLEMENTATION OF ANY CHANGE, THE CONTRACTOR AND THE ENGINEER SHALL MEET WITH THE APPROPRIATE LOCAL AND/OR STATE OFFICIAL OR ITS AGENT, TO DETERMINE IF THE CHANGE REQUIRES MODIFICATION TO EXISTING APPROVED PERMITS.

4. ALTERATION AND/OR DESTRUCTION OF WETLAND AREAS WITHOUT PRIOR CONSENT OF THE CONSERVATION COMMISSION IS PROHIBITED. SILTATION PLUMES, ILLICIT DISCHARGES, OR INADVERTENT ALTERATION SHALL BE CONSIDERED AS ACTIVITIES NOT PERMITTED BY THE ORDER AND SHALL BE REPORTED TO THE CONSERVATION COMMISSION ALONG WITH THE PROPOSED MITIGATIVE MEASURES.

5. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE EROSION AND SEDIMENT CONTROL BARRIER SHALL BE INSTALLED AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN THE EROSION CONTROL BARRIER UNTIL ALL WORK IS COMPLETE, AND ALL AREAS HAVE BEEN STABILIZED. THE REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE ONLY UPON THE APPROVAL OF THE CONSERVATION COMMISSION.

6. EROSION AND SEDIMENTATION CONTROL DEVICES, SUCH AS CHECK DAMS, SEDIMENT BASINS, ETC. ARE TO BE INSTALLED AS SHOWN ON THE SITE DEVELOPMENT PLANS WITH ASSOCIATED DETAILS, AS APPROPRIATE.

7. CONSTRUCTION OPERATIONS SHALL NOT CAUSE NOTICEABLE SEDIMENTATION PLUMES TO OCCUR ON OR SURROUNDING THE PROJECT. SHOULD SEDIMENT EXTEND BEYOND THE EROSION CONTROL BARRIERS, THE CONTRACTOR SHALL STOP WORK AND INSTALL ADDITIONAL MITIGATION MEASURES TO PREVENT FURTHER SEDIMENTATION.

8. NO MATERIAL SUBJECT TO EROSION SHALL BE STOCKPILED OVERNIGHT WITHIN 100 FEET OF ANY WETLAND AREAS WITHOUT PROPER EROSION AND SEDIMENTATION DEVICES IN PLACE.

9. EQUIPMENT SHALL NOT BE PARKED WITHIN WETLAND OR BUFFER AREAS EXCEPT DURING ACTUAL OPERATIONS REQUIRING SAID EQUIPMENT.

10. ACCUMULATED SEDIMENT ALONG EROSION CONTROL BARRIERS SHALL BE PERIODICALLY REMOVED AND DISPOSED OF BY THE CONTRACTOR AS REQUIRED BY THE CONSERVATION COMMISSION OR AS DIRECTED BY THE ENGINEER.

EROSION CONTROL METHODS:

1. IT IS OF GREAT IMPORTANCE THAT CONCENTRATION OF RUNOFF BE AVOIDED IN ORDER TO PREVENT THE TRANSPORT OF SEDIMENT.

2. THE PRIMARY EROSION CONTROL METHOD TO BE UTILIZED IS TO LIMIT THE AREA OF DISTURBANCE DURING CONSTRUCTION ACTIVITIES. THIS IS ACCOMPLISHED BY PROMPT STABILIZATION OF DISTURBED AREAS UPON COMPLETION OF SEQUENCES OF CONSTRUCTION.

3. EROSION AND SEDIMENT CONTROL DEVICES SUCH AS HAY BALES, SILT FENCES, DIVERSION BERMS, ETC. SHALL BE UTILIZED FOR THE PROTECTION OF THE AREAS BEYOND THE LIMIT OF CONSTRUCTION.

DEMARCATION OF SENSITIVE AREAS:

1. IT IS RECOMMENDED THAT BARRIERS BE PLACED ON THE SITE TO CONTROL THE LIMITS OF THE DISTURBANCE. AS AN EXAMPLE, HAY BALE BARRIERS PROVIDE SUCH DEMARCATION AND OTHER METHODS SUCH AS LOG BARRIERS, ROPE WITH FLAGGING, ETC. MAY BE UTILIZED.

2. CARE SHOULD BE TAKEN IN THE OPERATION OF EQUIPMENT, SUCH THAT ONLY THE MINIMUM AREA NEEDED TO BE ALTERED IS DISTURBED.

1. ACCESS TO THE SITE SHALL BE MADE IN THE AREA OF A PERMANENT DRIVEWAY OR ROADWAY UNLESS DOING SO WOULD RESULT IN A TRAFFIC HAZARD.

2. AN AREA OF CRUSHED STONE SHALL BE PLACED AT THE DRIVEWAY ENTRANCE TO INSURE THAT MUD IS NOT TRACKED ONTO THE EXISTING ROAD (SEE CONSTRUCTION ENTRANCE DETAIL). IF MUD IS INADVERTENTLY TRACKED ONTO THE ROAD, IT SHOULD BE PROMPTLY REMOVED.

3. LABORERS VEHICLES SHALL BE PARKED IN A DESIGNATED AREA AS TO MINIMIZE DISTURBED SURFACES AND TO INSURE THAT RUTS ARE NOT CREATED AND WHICH COULD CARRY WATER TO A WETLAND OR OTHER SENSITIVE AREA.

4. SUITABLE MEASURES SHALL BE TAKEN TO INSURE THAT LARGE DELIVERY TRUCKS SERVING THE SITE DO NOT DAMAGE TO AREAS OF EXISTING VEGETATION OR CAUSE DISTURBANCE TO STABILIZED AREAS.

ORDERLY CONSTRUCTION PROCEDURES:

1. THE CONTRACTOR SHALL PERFORM SITE CONSTRUCTION IN A MANNER WHICH WILL INSURE THE STABILIZATION OF AREAS IN PROXIMITY OF OR TRIBUTARY TO WETLAND AREAS AS SOON AS POSSIBLE.

2. EROSION CONTROL DEVICES SUCH AS HAY BALE BARRIERS, SILT FENCES AND MULCH SHALL BE BROUGHT TO THE SITE AND STOCKPILED PRIOR TO INITIATING CONSTRUCTION.

3. THE CONTRACTOR SHALL PROVIDE AREAS FOR THE TEMPORARY STORAGE OF CONSTRUCTION DEBRIS. CONSTRUCTION DEBRIS SHALL NOT BE ALLOWED TO ACCUMULATE FOR AN EXTENDED PERIOD OF TIME.

CLEARING:

1. LAND CLEARING SHALL BE PERFORMED IN PHASES CONSISTENT WITH ACTUAL CONSTRUCTION REQUIREMENTS. FINAL LAND CLEARING SHALL BE LIMITED TO RETURN TO GRADE SLOPES.

2. TREES SHALL BE CUT AND STUMPS GROUND IN PLACE TO EXISTING GRADE TO MAINTAIN SOIL STABILIZATION.

3. BRUSH AND BRANCHES SHOULD BE CHIPPED AND UTILIZED FOR WOOD MULCH IF PRACTICAL.

4. VEHICLES UTILIZED IN THE CLEARING OPERATION SHOULD NOT TRAVERSE WETLANDS OR FLOWING BROOKS OR STREAMS WITHOUT PRIOR APPROVAL FROM THE LOCAL CONSERVATION COMMISSION OR AGENT.

GRUBBING AND STRIPPING:

1. TOP SOIL SHALL BE RETAINED FOR LANDSCAPING PURPOSES.

2. GRUBBING AND STRIPPING OF SLOPES LEADING TO WETLAND AREAS SHOULD NOT BE UNDERTAKEN DURING PERIODS OF INTENSE RAINFALL.

3. TOP SOIL STOCKPILE LOCATIONS ARE DEPICTED ON THE SITE DEVELOPMENT PLAN, THE EROSION CONTROL PLAN, AND/OR THE CONSTRUCTION PHASING PLAN AND SHALL BE ADHERED TO.

4. WHEN WORKING IN THE VICINITY OF WETLANDS, TOP SOIL SATURATED WITH WATER SHALL BE REMOVED, AND CONTAINED PRIOR TO BEING USED.

5. AREAS LEADING TO WETLANDS SHALL HAVE HAY BALE BARRIERS INSTALLED ACROSS THEM IN ARCS POINTING DOWN THE HILL AT INTERVALS SUFFICIENT TO MITIGATE RUNOFF CARRYING SEDIMENT.

6. DURING PERIODS OF INTENSE RAINFALL, OR IF THE PROJECT IS TO BE LEFT FOR A PERIOD OF TIME, CONSIDERATION SHOULD BE GIVEN TO SUPPLEMENT HAY BALE BARRIERS WITH EITHER CRUSHED STONE OR ARMORED BARRIERS. CONSIDERATION MAY ALSO BE GIVEN TO DIVERTING RUNOFF INTO TEMPORARY SEDIMENTATION CONTROL AREAS.

7. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED AND SUPPLEMENTED.

ROUGH GRADING:

1. THE ROUGH GRADING OF THE ROADWAY SHALL FOLLOW THE FILL AND EXCAVATION SEQUENCES, RESULTING IN SLOPES BEING MAINTAINED AWAY FROM WETLANDS AND SENSITIVE AREAS AS MUCH IS PRACTICAL.

2. DURING THIS PROCESS THE EROSION POTENTIAL IS HIGH. SUFFICIENT EROSION CONTROL BARRIERS SHOULD BE KEPT IN PROXIMITY TO THE WORK AREA TO ALLOW QUICK ACTION SHOULD EROSION BECOME AN ISSUE AND TO INSURE THAT NO SEDIMENT REACHES WETLANDS OR OTHER SENSITIVE AREAS.

3. IN AREAS OF CUT AND/OR FILL WHERE SLOPES COULD DIVERT WATER TOWARDS WETLAND AREAS, DIVERSION TRENCHES AND/OR SWALES SHOULD BE CONSIDERED AND IMPLEMENTED TO DIVERT WATER AWAY FROM THESE AREAS.

4. STEEP SIDE SLOPES IN EXCAVATION OR FILL SHOULD BE AVOIDED.

5. DISTURBED AREAS SHALL BE STABILIZED BY LOAMING AND SEEDING OR RIPRAPPED IMMEDIATELY AFTER THE FINISH GRADING HAS BEEN MET. IF FINAL GRADING DOES NOT OCCUR DURING THE GROWING SEASON, THESE AREAS SHALL BE MULCHED BY HAY SECURED BY WEIGHTED SNOW FENCE, CHICKEN WIRE MESH OR JUTE NETTING WITH APPROPRIATE SEEDING DEVICES.

6. A GROUND COVER SUFFICIENT TO RETAIN SOILS IN A STABILIZED CONDITION MUST BE PROVIDED WITHIN 14 WORKING DAYS, SEASON PERMITTING, ON ANY PORTION OF THE TRACT UPON WHICH FURTHER ACTIVE CONSTRUCTION IS NOT BEING UNDERTAKEN.

DRAINAGE:

1. IF DRAINAGE PIPES OR SWALES ARE TO BE INSTALLED, THEY SHALL BE CONSTRUCTED FROM DOWNSTREAM UP AND CONSTRUCTION SHALL INCLUDE THE PLACEMENT OF OUTFALL RIPRAP AND OTHER MITIGATIVE MEASURES SHOWN ON THE PLAN.

2. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, HAY BALES OR OTHER SUITABLE METHODS TO ENTRAP SEDIMENT SHALL BE PLACED DOWNSTREAM.

3. THE TOE OF EMBANKMENTS SHALL BE STABILIZED IMMEDIATELY, MULCHED AND TACKED DOWN BY SUITABLE MEANS.

4. IF THE PROPOSED ROADWAY IS NOT PAVED IMMEDIATELY AFTER THE INSTALLATION OF DRAINAGE STRUCTURES, HAY BALES SHALL BE PLACED TO PROTECT THE INTEGRITY OF THE STRUCTURES.

WATER SUPPLY:

1. IF MUNICIPAL WATER SUPPLY IS TO BE UTILIZED, CARE SHOULD BE TAKEN TO INSURE THAT THE TRENCH DOES NOT DIVERT RUNOFF WATER TO A WETLAND AREA OR ONTO A ROAD WHERE IT WILL BE CARRIED INTO A WETLAND OR SENSITIVE AREA.

BUILDING CONSTRUCTION:

1. DURING THE CONSTRUCTION OF BUILDINGS, MATERIALS SHALL BE STOCKPILED IN A MANNER AS NOT TO DIVERT OR CONCENTRATE RUNOFF IN ORDER TO PREVENT THE TRANSPORT OF SEDIMENT.

2. THE LOT SHOULD BE KEPT LITTER FREE.

3. NO FUELS, SOLVENTS, PAINTS, ETC. SHALL BE STORED ON SITE. THESE PRODUCTS SHALL BE REMOVED FROM THE SITE EACH EVENING AND RETURNED THE FOLLOWING DAY.

4. BURIAL OF MATERIALS OR CONSTRUCTION DEBRIS IS PROHIBITED.

5. PLASTERERS AND PAINTERS SHALL BE INFORMED THAT DISCHARGE OF LIQUIDS INTO A WETLAND OR RESOURCE AREA IS PROHIBITED.

LANDSCAPING:

1. LANDSCAPING OF AREAS SHOULD OCCUR AS SOON AS POSSIBLE.

2. IF THE SEASON OR ADVERSE WEATHER CONDITIONS DO NOT PERMIT THE ESTABLISHMENT OF VEGETATION, TEMPORARY HAY MULCH, OR OTHER MEANS OF STABILIZATION SHALL BE PERFORMED.

3. USE OF HERBICIDES MAY BE SUBJECT TO OTHER REGULATIONS.

4. CARE SHOULD BE TAKEN WITH FERTILIZERS SUCH THAT THEY ARE NOT CARRIED TO A WETLAND OR SENSITIVE AREA.

5. TRUNKS OF TREES SHOULD NOT BE COVERED WITH MORE THAN TWO (2) INCHES OF SOIL.

6. STUMPS SHALL BE GROUND DOWN INTO A WOOD MULCH AND UTILIZED OR REMOVED FROM THE SITE.

7. DURING CONSTRUCTION, THE FILL AND EXCAVATION SEQUENCES SHOWN ON THIS PLAN SHOULD BE UTILIZED. THESE SEQUENCES REQUIRE THAT SLOPED AREAS LEFT FOR ANY PERIOD OF TIME NOT SLOPED TOWARDS THE WETLAND OR SENSITIVE AREA, BUT RATHER BACK INTO THE FILL MATERIAL.

8. THE BASIN BERM IS TO BE CONSTRUCTED BY EQUIPMENT WORKING ON STABLE MATERIAL ONLY. HAY BALES SHALL BE PLACED AT THE TOE OF SLOPE UNTIL SURFACES ARE STABILIZED.

9. NO EXCAVATION WITHIN THE BASIN SHALL COMMENCE UNTIL THE BERM IS IN PLACE.

10. CARE SHOULD BE TAKEN TO INSURE THAT ORGANIC MATERIAL REMOVED FROM THE BASIN AREA IS RESERVED FOR FINISH GRADING AND THE STABILIZATION OF DISTURBED AREAS.

11. IF DEWATERING IS NECESSARY, PUMPING TO A SETTLING BASIN SHALL BE PERMITTED IF SETTLING BASIN IS CONSTRUCTED, MAINTAINED AND OPERATED EFFECTIVELY.

12. AT NO TIME SHALL RUNOFF CARRYING SEDIMENT BE ALLOWED TO FLOW TO THE WETLANDS OR SENSITIVE AREAS.

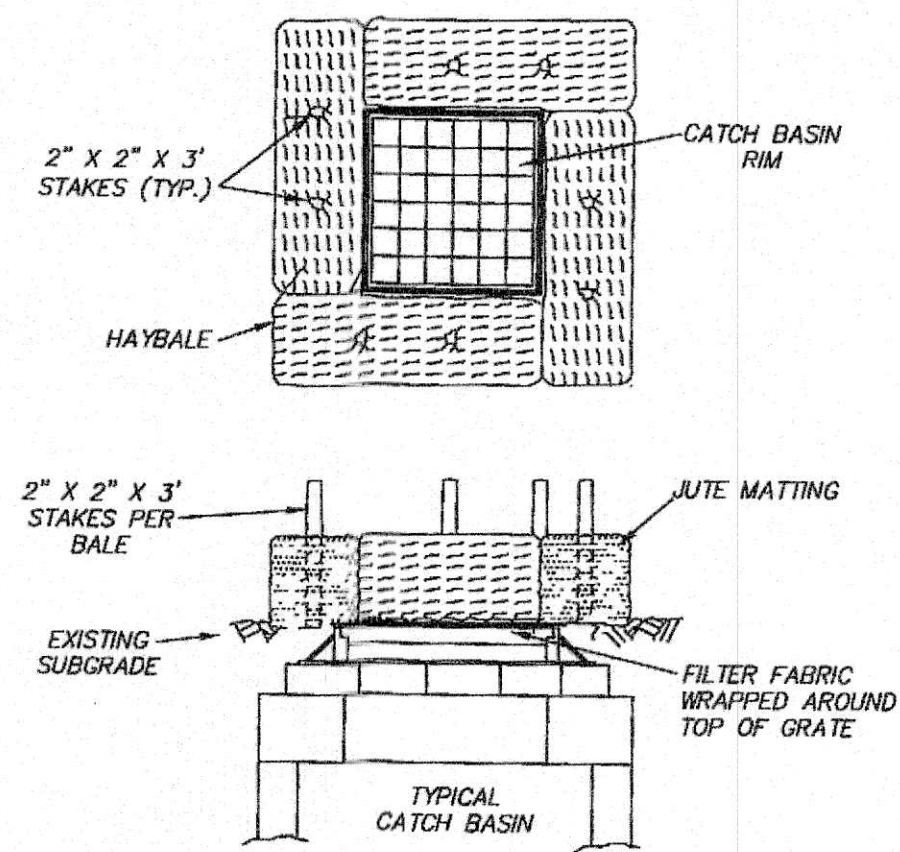
13. THE WORK AREA SHALL REMAIN FREE OF LITTER AND DEBRIS AT ALL TIMES AND MONITORED ON A DAILY BASIS TO ENSURE COMPLIANCE.

14. ALL MATERIALS STOCKPILED SHALL BE LOCATED, MULCHED OR OTHERWISE TREATED TO INSURE THAT MATERIALS CONTAINED, THEREIN, AREA NOT CARRIED INTO THE WETLANDS.

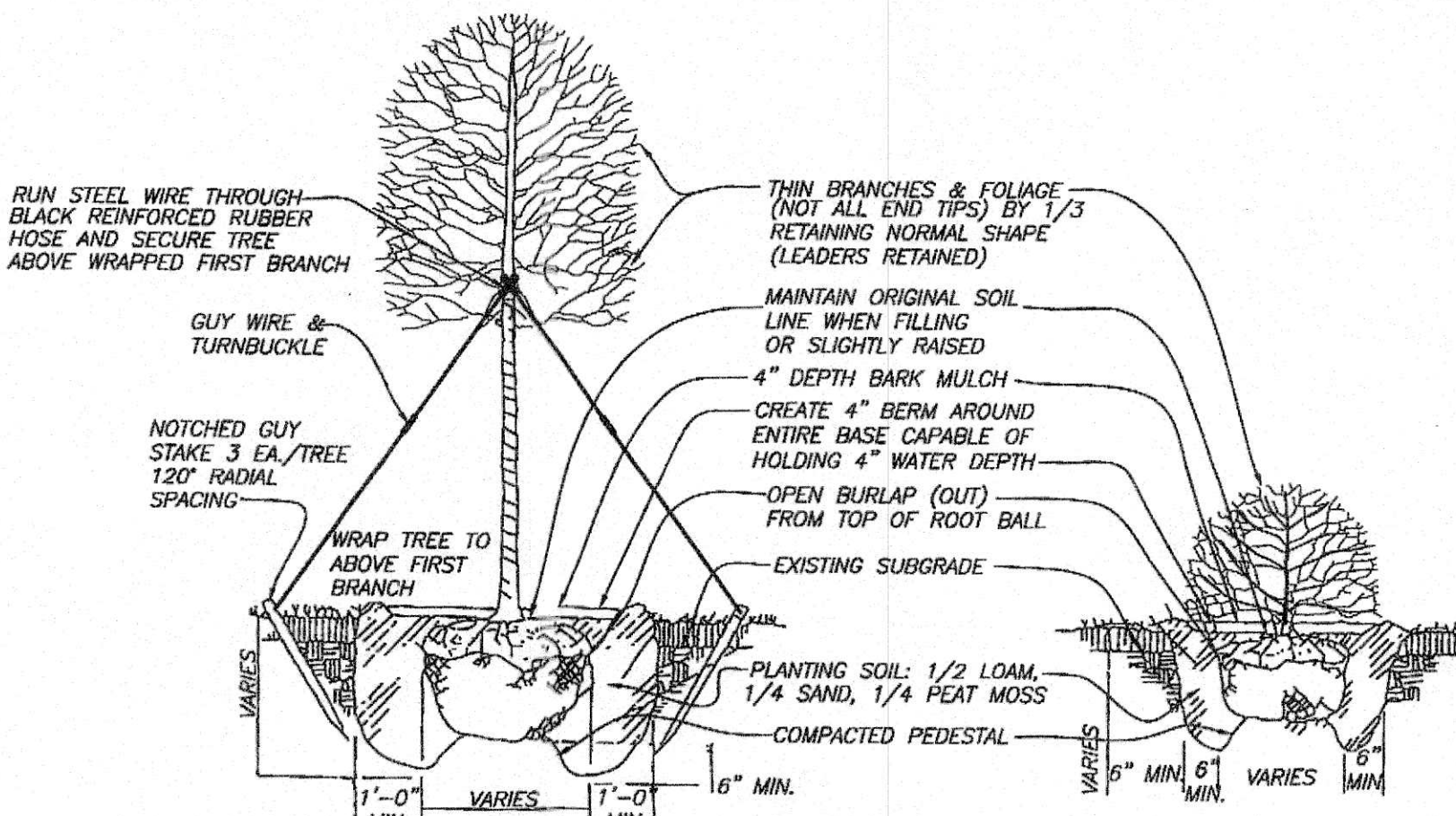
15. ANY MATERIALS BLOWN OR CARRIED BY WATER AWAY FROM THE CONSTRUCTION SITE OR INTO THE WETLAND AREAS SHALL BE PROMPTLY REMOVED AS REQUIRED BY THE LOCAL CONSERVATION COMMISSION.

16. A GEOTECHNICAL FILTER FABRIC SHALL BE PLACED OVER THE BASIN SUBDRAIN DURING CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING AND CLOGGING THE DRAIN. THE FABRIC SHALL BE REMOVED FOR BASIN PREPARATION FOR FINAL STABILIZATION.

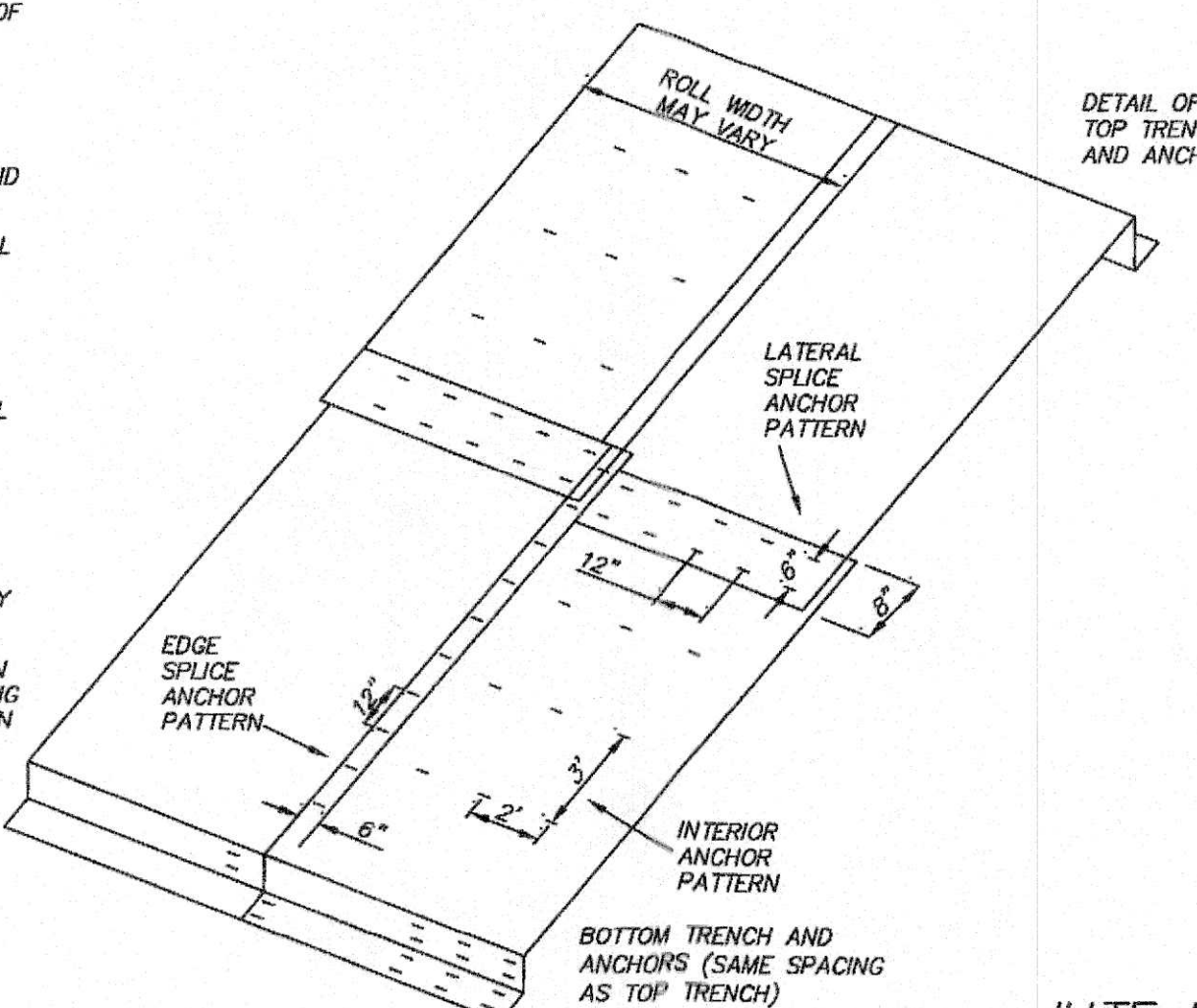
- NOTES:
1. INSTALL HAY BALES FOR TEMPORARY SEDIMENTATION CONTROL.
 2. PERFORM BUILDING AND SITE CONSTRUCTION.
 3. CLEAN OUT CATCH BASINS AND DRAINAGE.
 4. RESTORE ALL DISTURBED AREAS.
 5. LOAM AND SEED ALL DISTURBED AREAS.
 6. REMOVE TEMPORARY EROSION CONTROL AFTER VEGETATION IS ESTABLISHED.



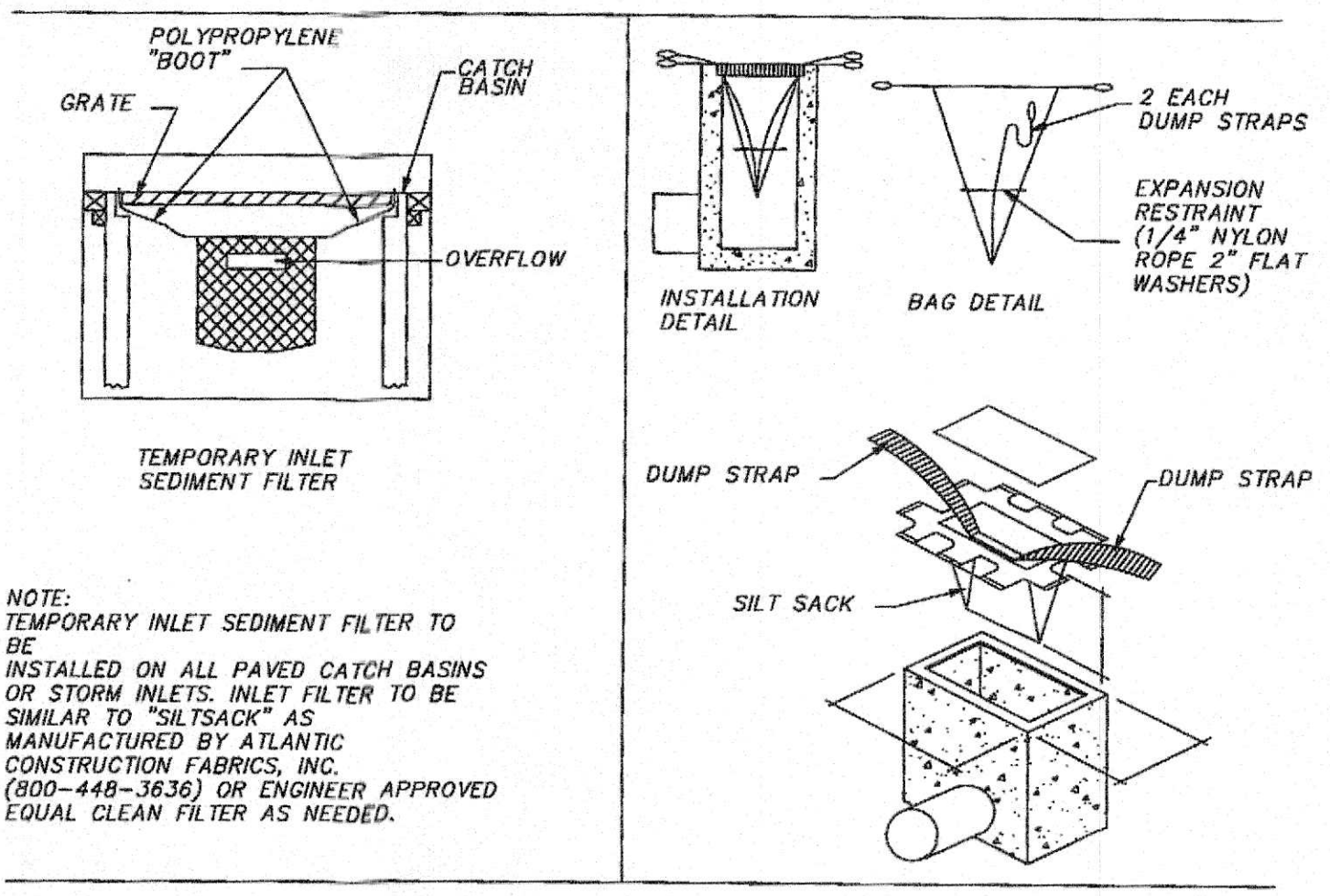
TEMPORARY ROADWAY SEDIMENT CONTROL
NO SCALE



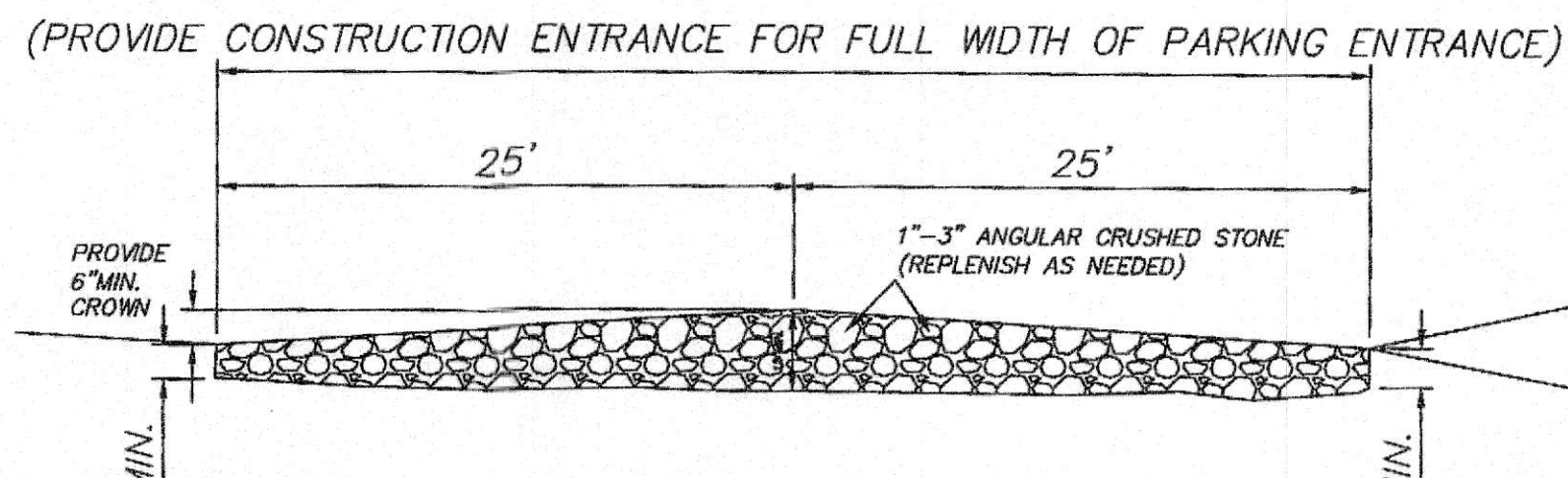
DECIDUOUS TREE PLANTING DETAIL
NO SCALE



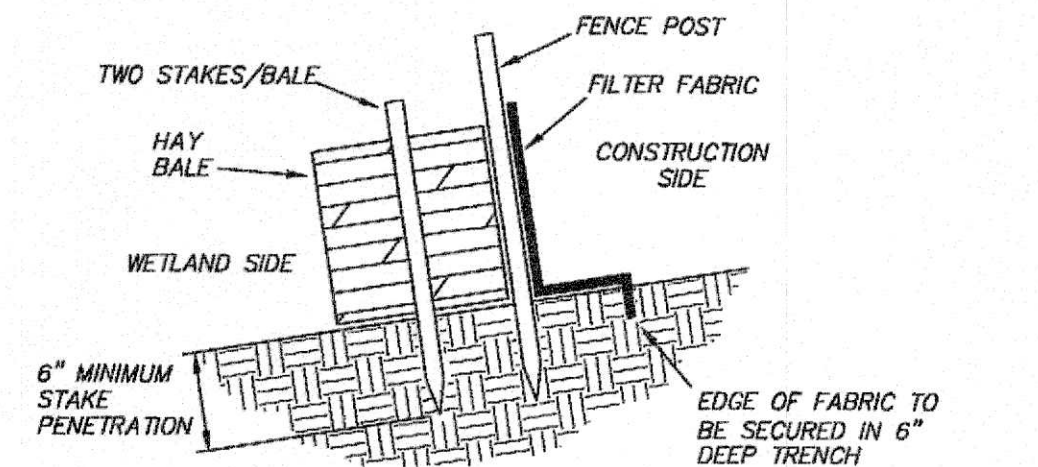
JUTE MATTING PLACEMENT
NO SCALE



SILT SACK DETAIL
NO SCALE

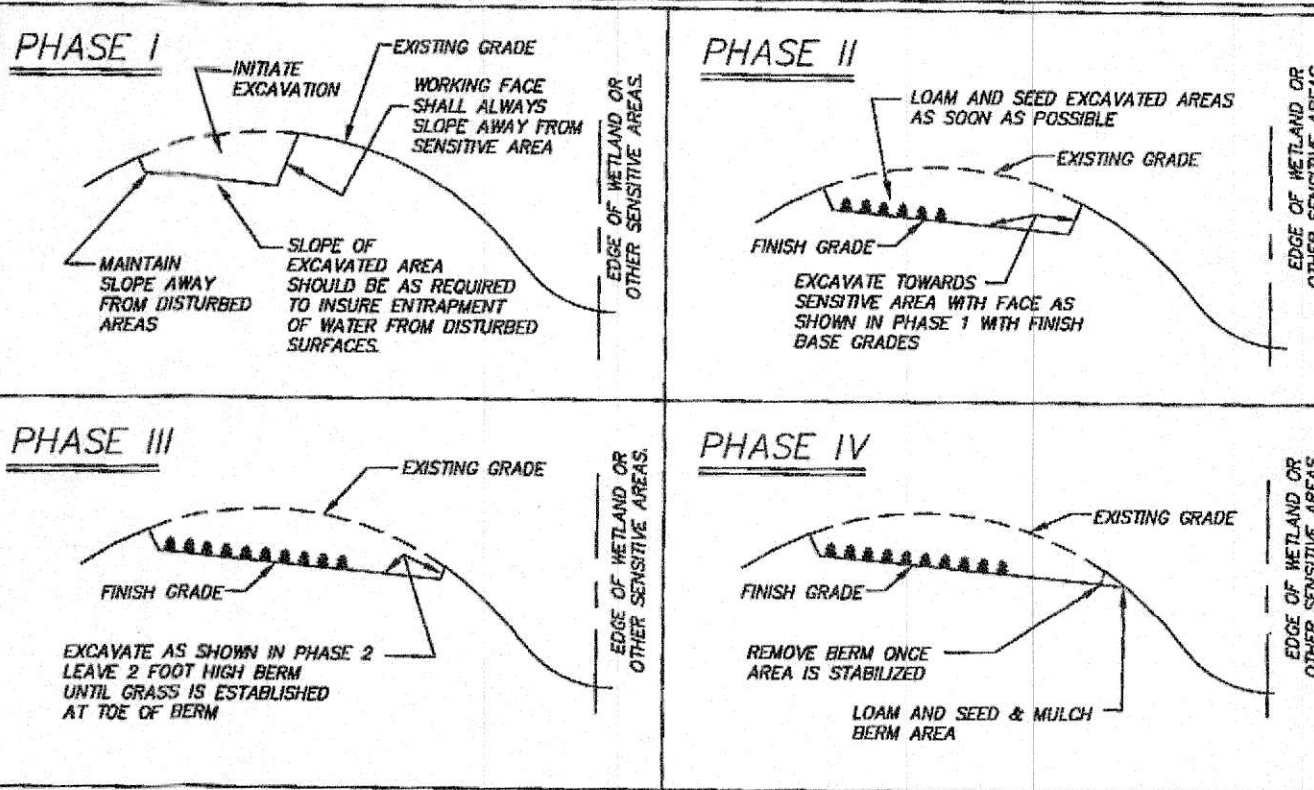


CONSTRUCTION ENTRANCE
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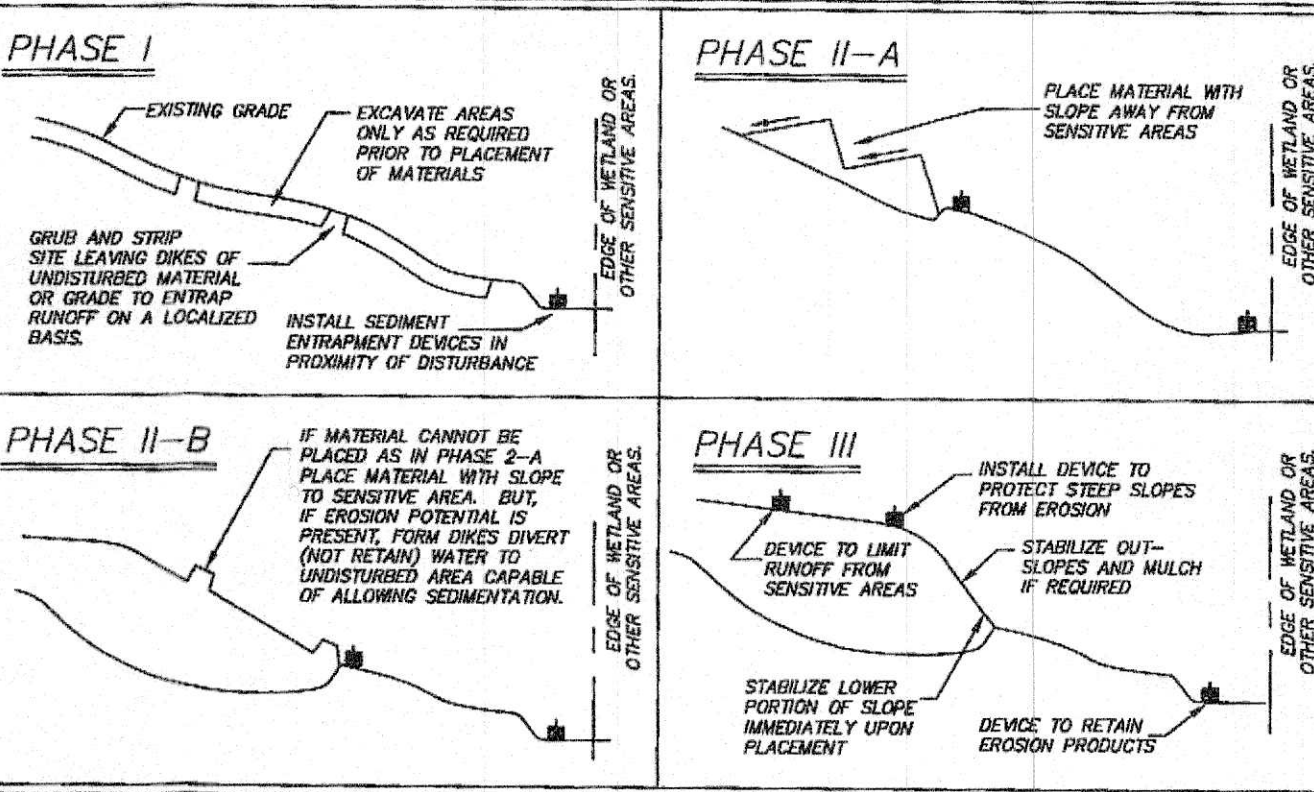


HAYBALES WITH SILT FENCE DETAIL
NO SCALE

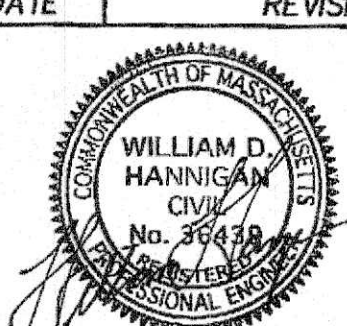
EXCAVATION SEQUENCE



FILL SEQUENCE



NO.	DATE	REVISIONS	BY
7	01/20/21	ISSUED FOR ENDORSEMENT	WDH
6	11/17/20	MEDIATION REVIEW	WDH/CMA
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3	08/09/18	ADDITIONAL BOARD COMMENTS	WDH/CMA
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CONSTRUCTION DETAILS

IN

GRAFTON, MASSACHUSETTS

PREPARED FOR:
PRENTICE PLACE, LLC
SOTIR PAPALIO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS
TEL: (508) 845-0564

APPROVAL PURSUANT TO CH. 40B §20.23
GRAFTON BOARD OF APPEALS
DATE: 2/22/21
CHAIR

CALC: CMA/WDH	DRWN: CMA/WDH	SCALE: NA
CHKD: WDH	APPD: WDH	DATE: AUG 23, 2017
SRV: JEF/PJB	FB: E2565.122115	JOB NO: 2565
TAB: 9-DET	SHEET 10 OF 13	PLAN NO: C-12-15

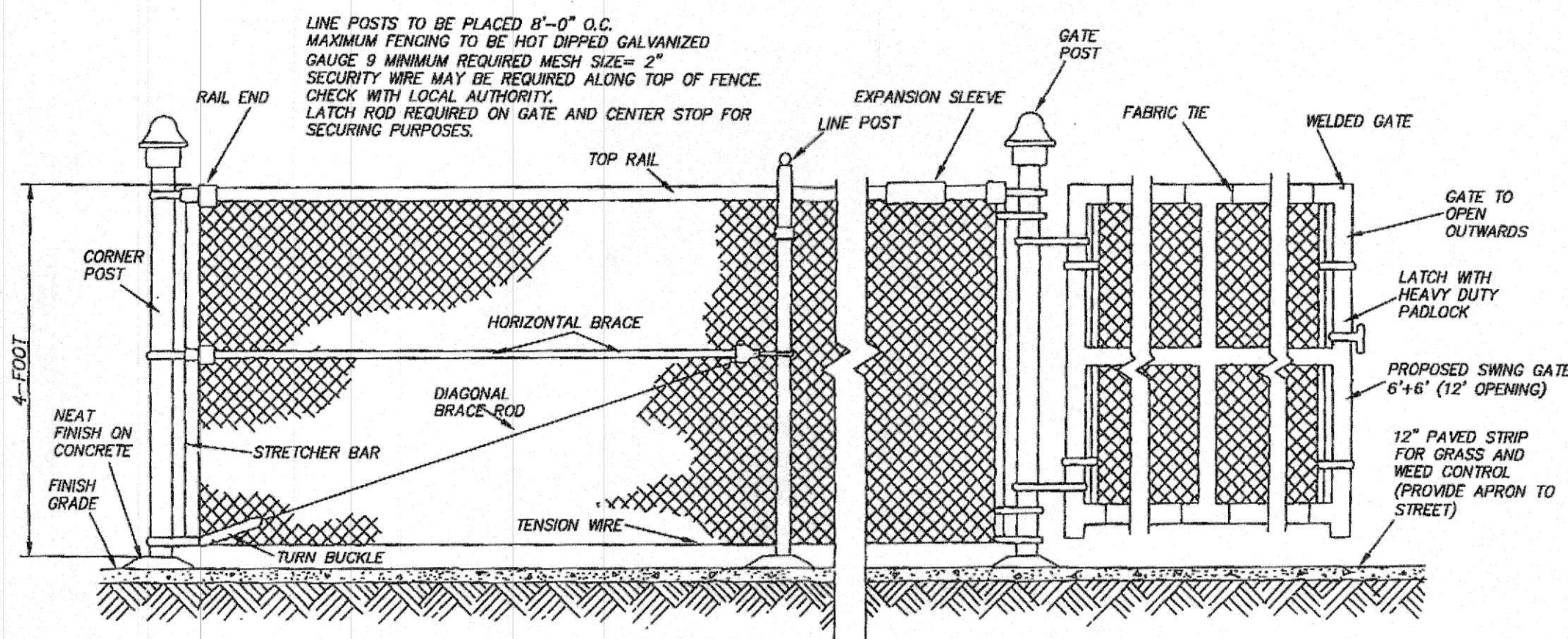
PLAN BOOK 955 PLAN 23
SHEET 10 OF 13

I HEREBY CERTIFY THAT THIS PLAN
WAS PREPARED IN CONFORMANCE WITH
THE RULES AND REGULATIONS OF THE
REGISTERS OF DEEDS.

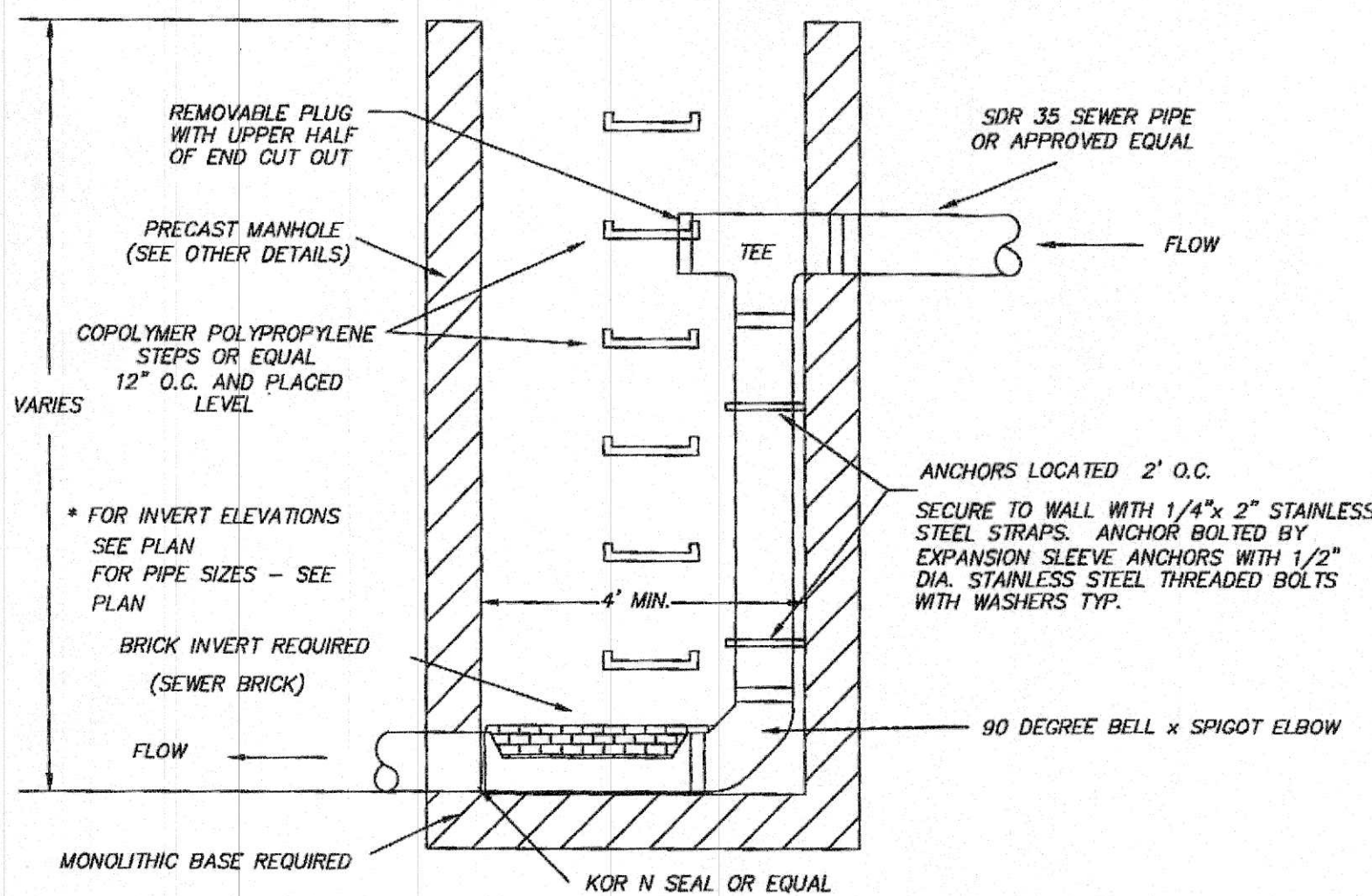
DAVID J. LeROY, P.L.S.#47416 DATE: 1-20-21

Town Clerk
Andy L. Saville

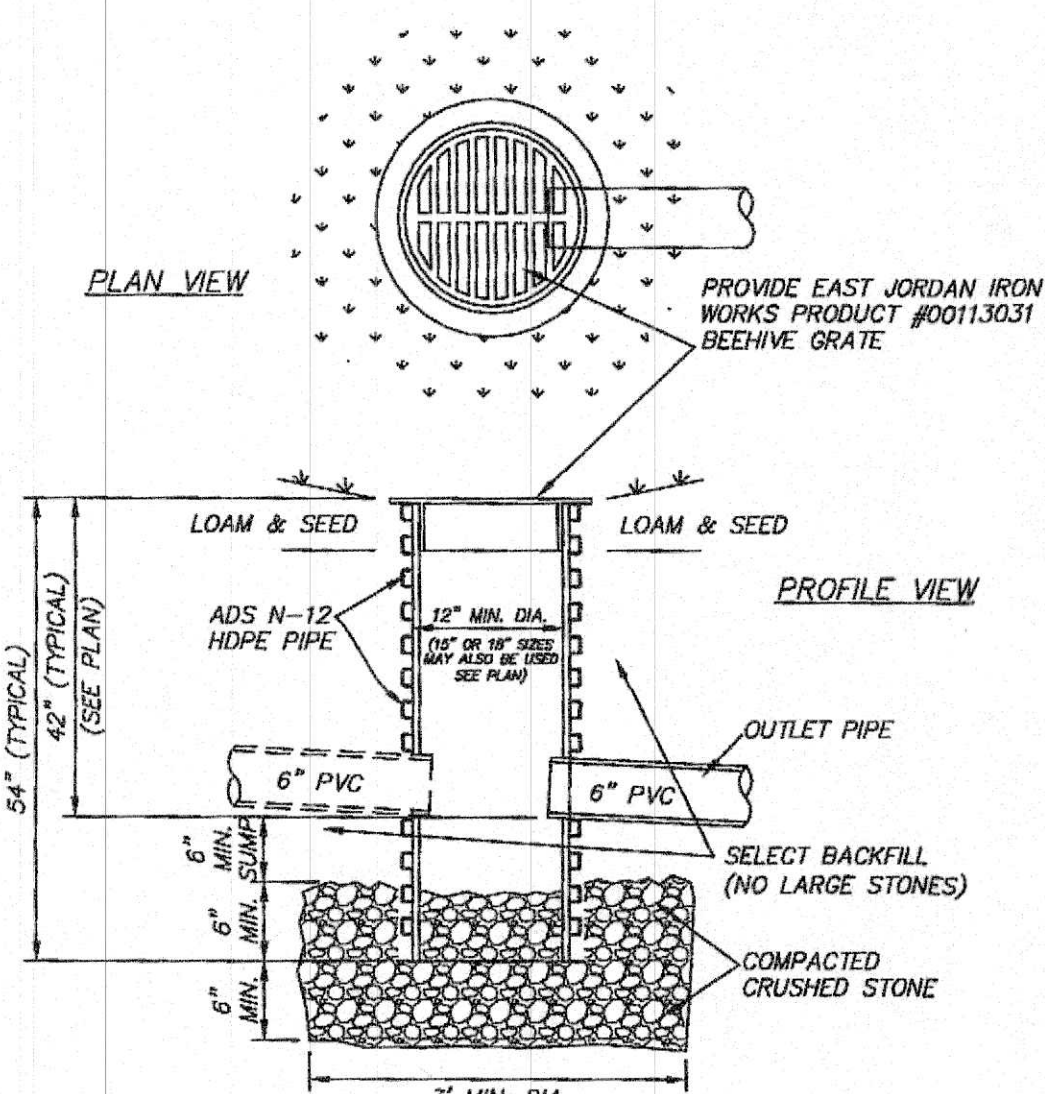
APPLICANT
PRENTICE PLACE, LLC
C/O SOTIR PAPALIO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545



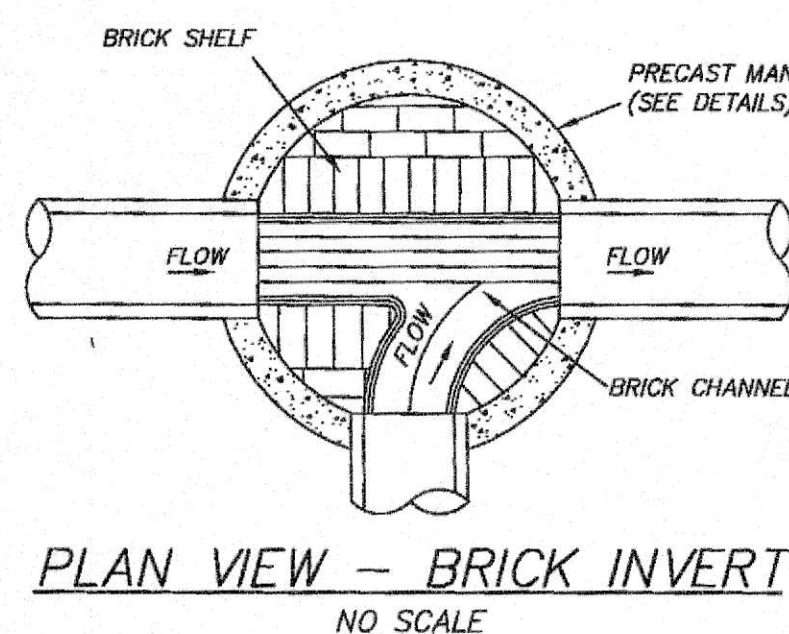
CHAIN LINK FENCE DETAIL
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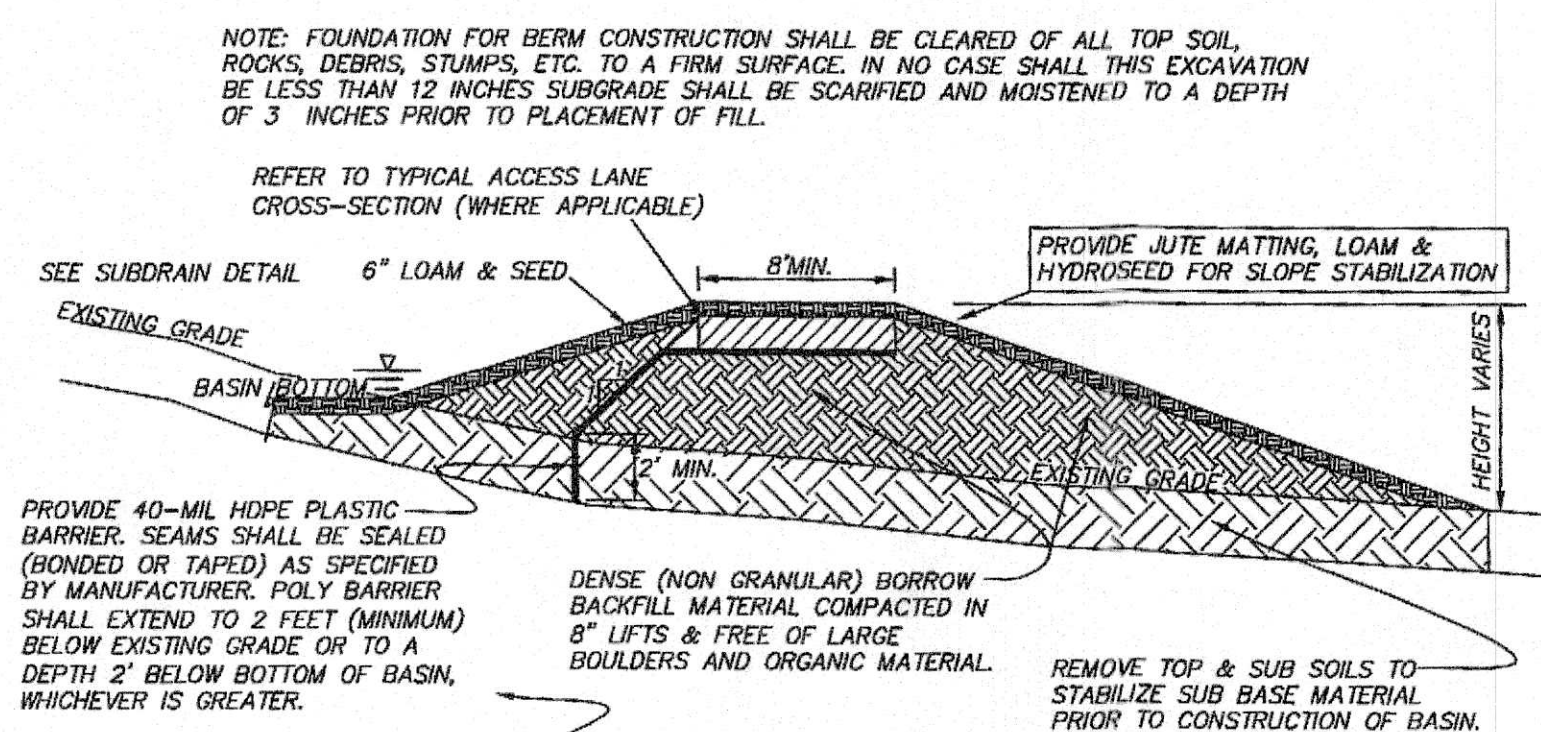
SEWER MANHOLE-INTERNAL DROP
NO SCALE



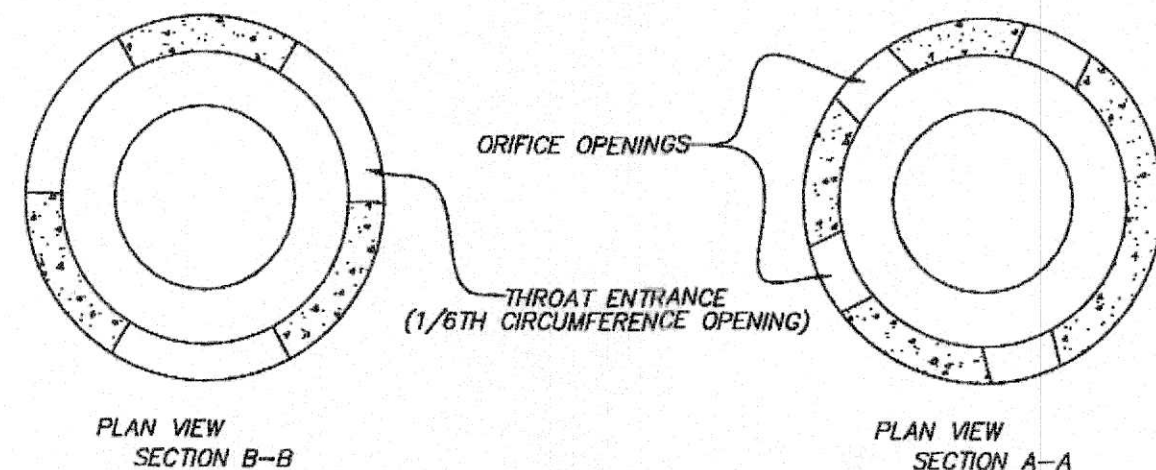
ADS N-12 TYPE YARD DRAIN
NO SCALE
(FOR USE IN LAWN AREAS)



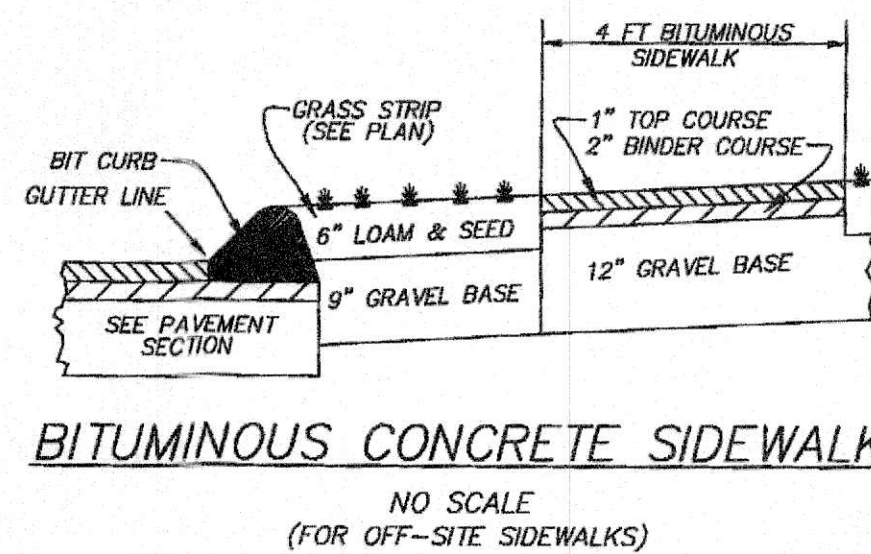
PLAN VIEW - BRICK INVERT
NO SCALE



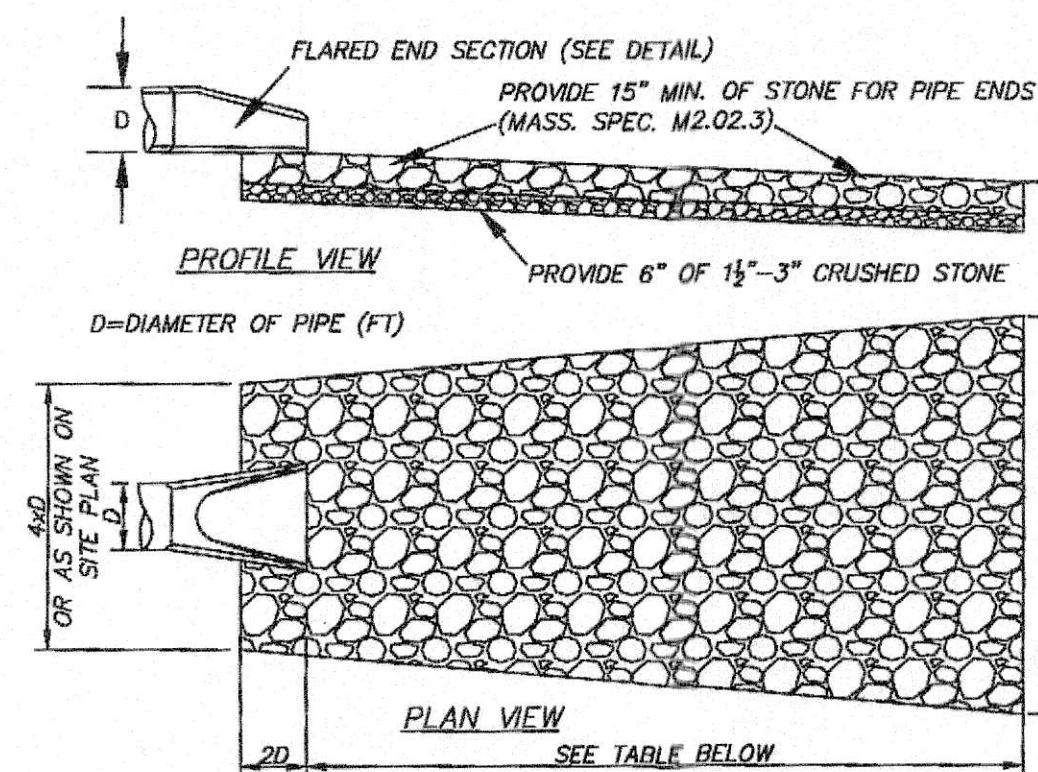
DETENTION BASIN BERM
(REQUIRED FOR DETENTION BASIN CONSTRUCTION)
NO SCALE



D-BASIN OUTLET STRUCTURE
WITH 1/6TH CIRCUMFERENCE THROAT OPENINGS
NO SCALE

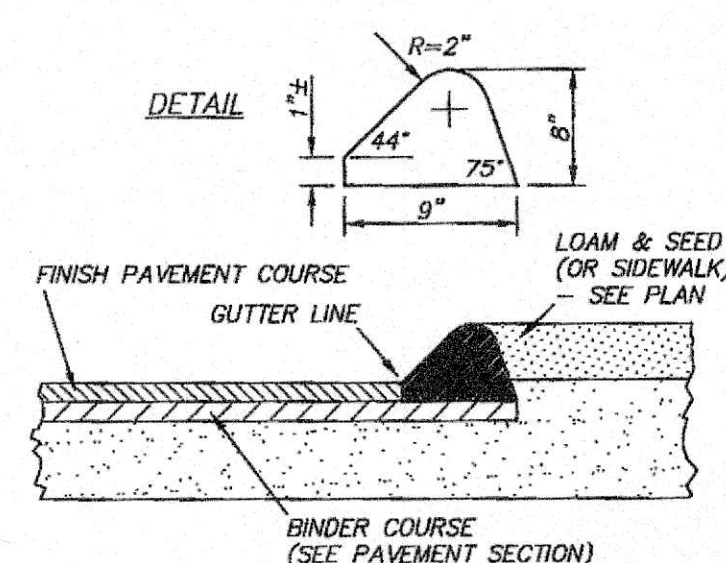


BITUMINOUS CONCRETE SIDEWALK
NO SCALE
(FOR OFF-SITE SIDEWALKS)

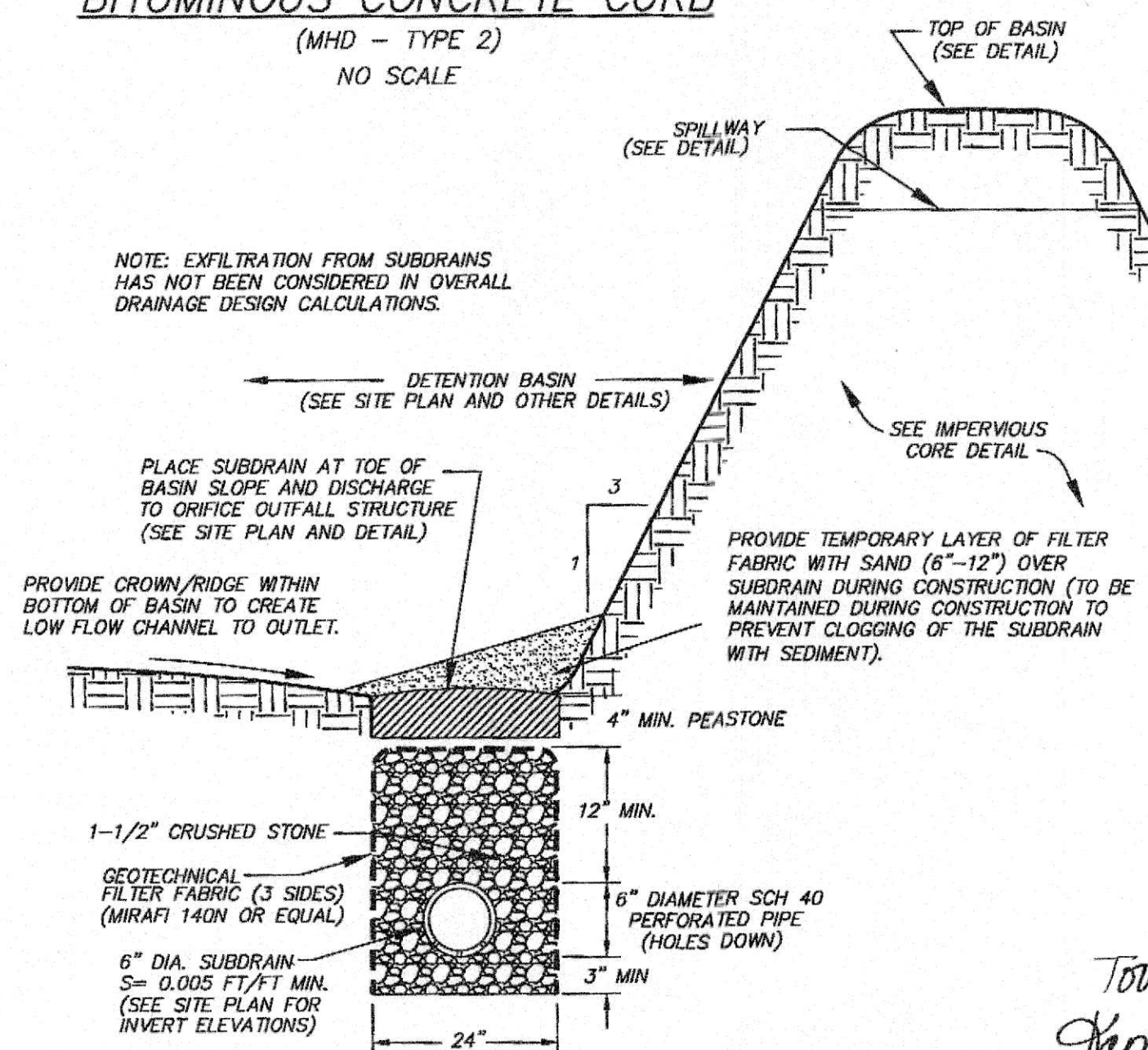


RIP RAP APRON DETAIL
NO SCALE

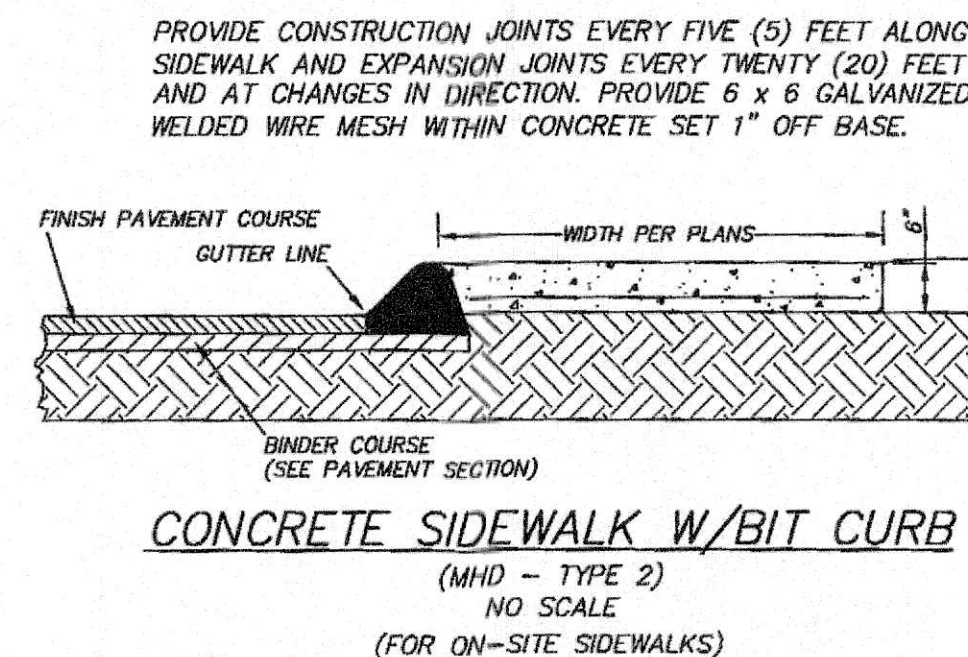
OUTLET	LENGTH	TERMINUS WIDTH
FE#1 (15-IN HDPE)	18 FEET	18.0 FEET



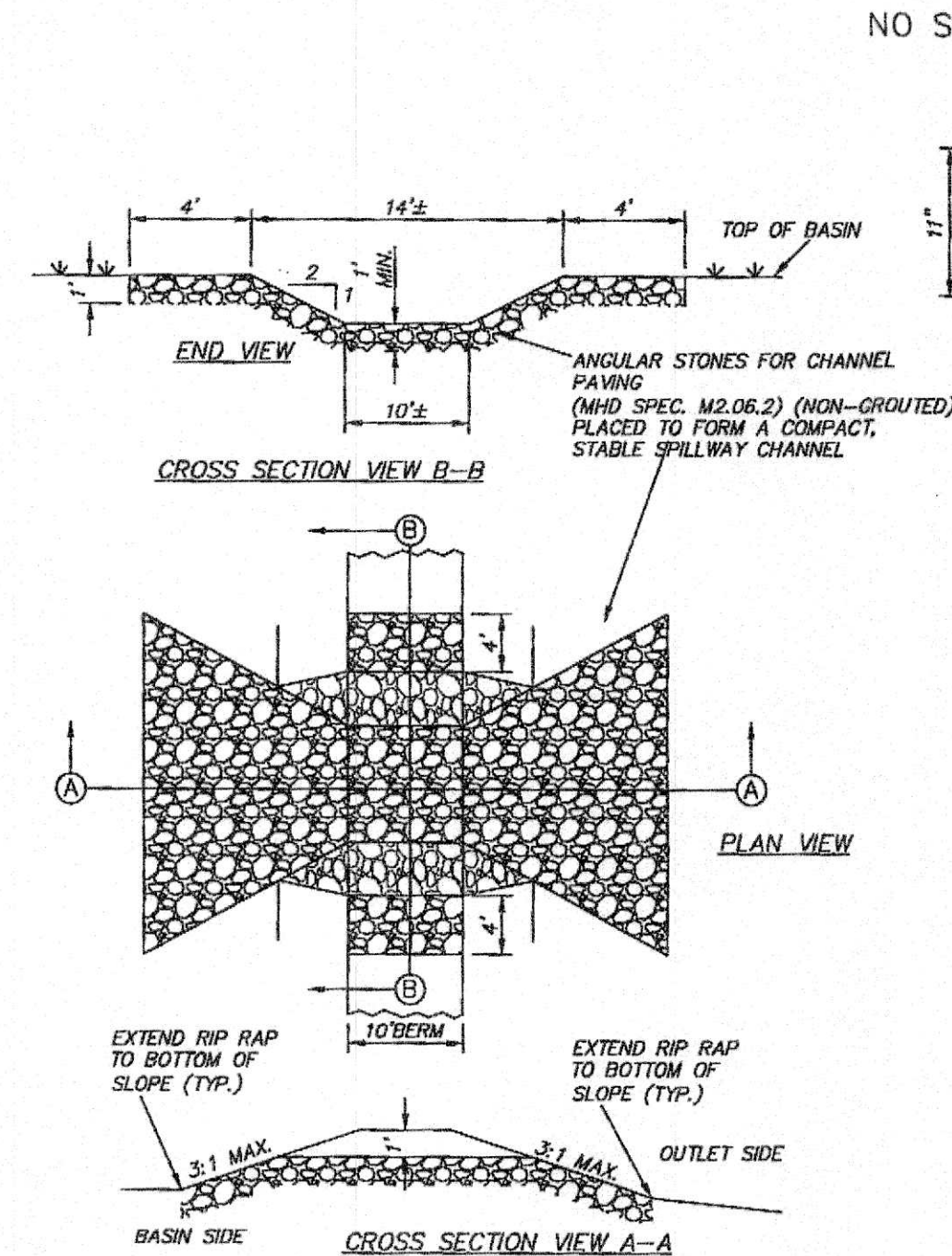
BITUMINOUS CONCRETE CURB
(MHD - TYPE 2)
NO SCALE



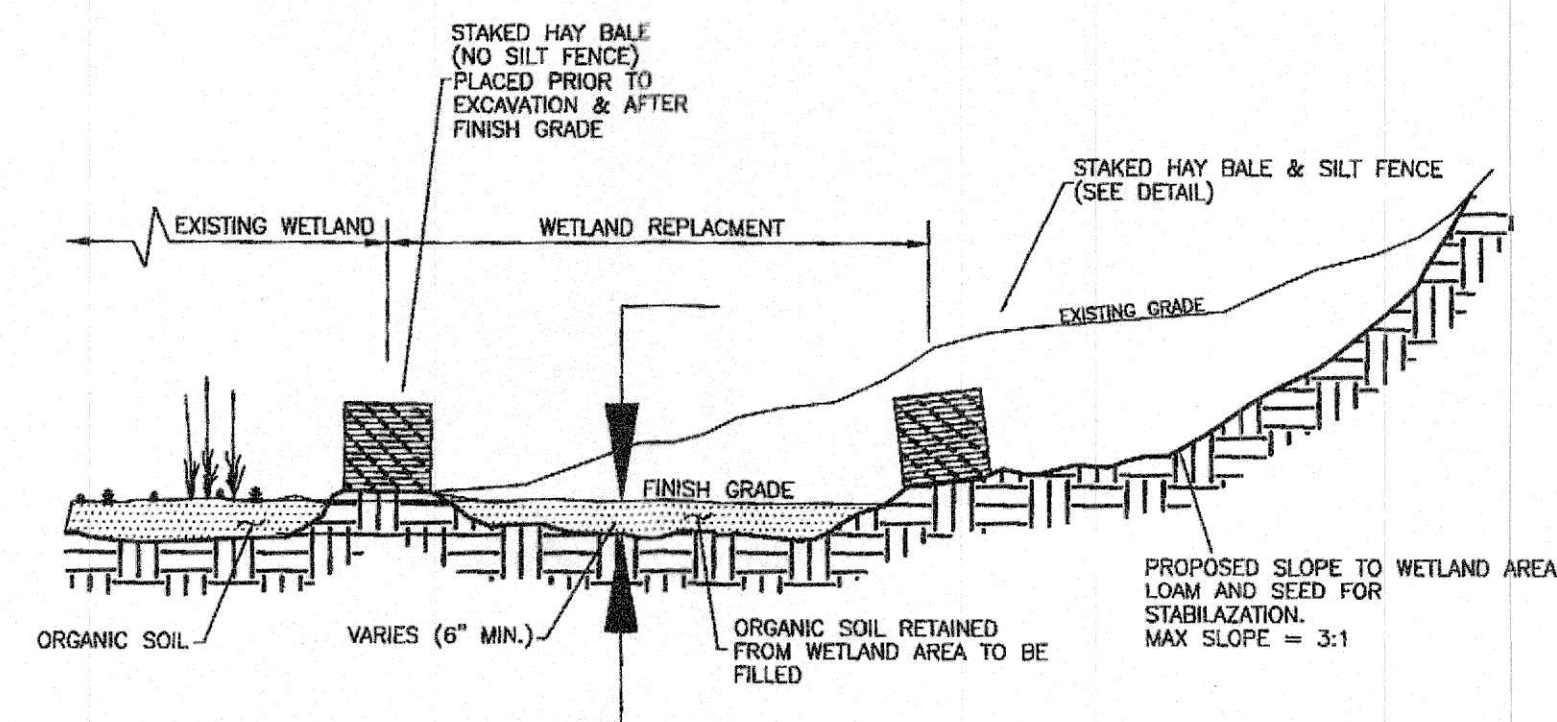
DETENTION BASIN SUBDRAIN DETAIL
NO SCALE



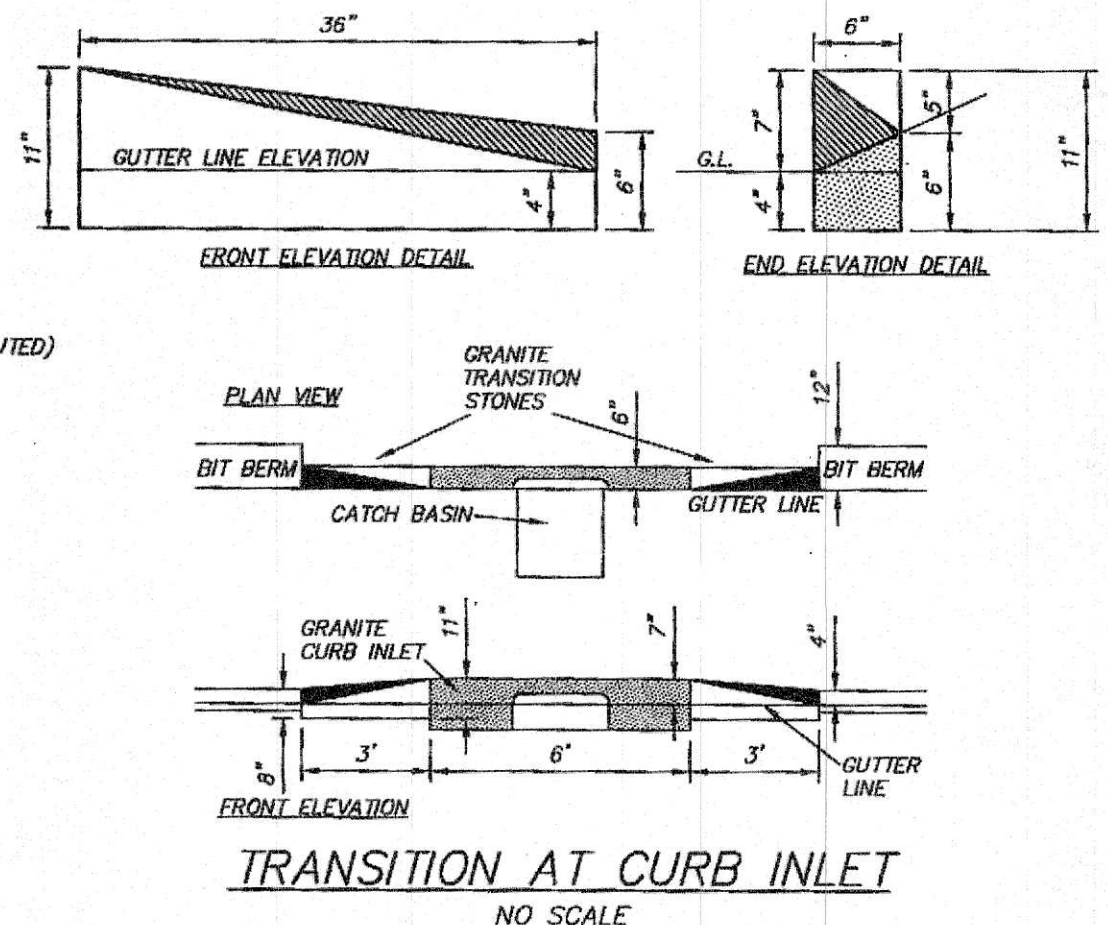
CONCRETE SIDEWALK W/BIT CURB
(MHD - TYPE 2)
NO SCALE
(FOR ON-SITE SIDEWALKS)



EMERGENCY SPILLWAY DETAIL
NO SCALE



NO SCALE



TRANSITION AT CURB INLET
NO SCALE

PROJECT NOTES:

REFERENCE IS MADE TO ORDER OF CONDITIONS ISSUED BY THE TOWN OF GRAFTON CONSERVATION COMMISSION UNDER DEP FILE #164-0991 ISSUED ON OCTOBER 1, 2020 AND RECORDED IN THE WORCESTER SOUTH COUNTY REGISTRY OF DEEDS (BOOK 63563, PAGE 370).

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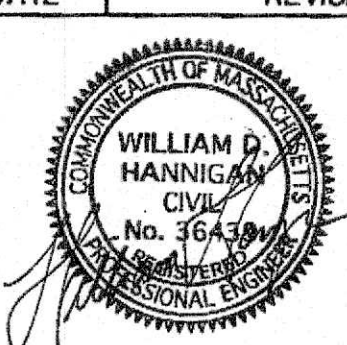
APPLICANT
PRENTICE PLACE, LLC
C/O SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS 01545

APPROVAL PURSUANT TO CH. 40 B §20.23
GRAFTON BOARD OF APPEALS

DATE: 2/21/21

CHAIR

NO.	DATE	REVISIONS	BY
7	01/20/21	ISSUED FOR ENDORSEMENT	WDH
6	11/17/20	MEDIATION REVIEW	WDH/CMA
5	3/17/20	BOARD/PEER COMMENTS	WDH/CMA
4	11/18/19	BOARD COMMENTS	WDH/CMA
3	08/09/18	ADDITIONAL BOARD COMMENTS	WDH/CMA
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HANNIGAN ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS

8 MONUMENT SQUARE
LEOMINSTER, MASSACHUSETTS 01453
(978) 534-1234 (T)
(978) 534-6060 (F)
WWW.HANNIGANENGINEERING.COM

CONSTRUCTION DETAILS
IN
GRAFTON, MASSACHUSETTS

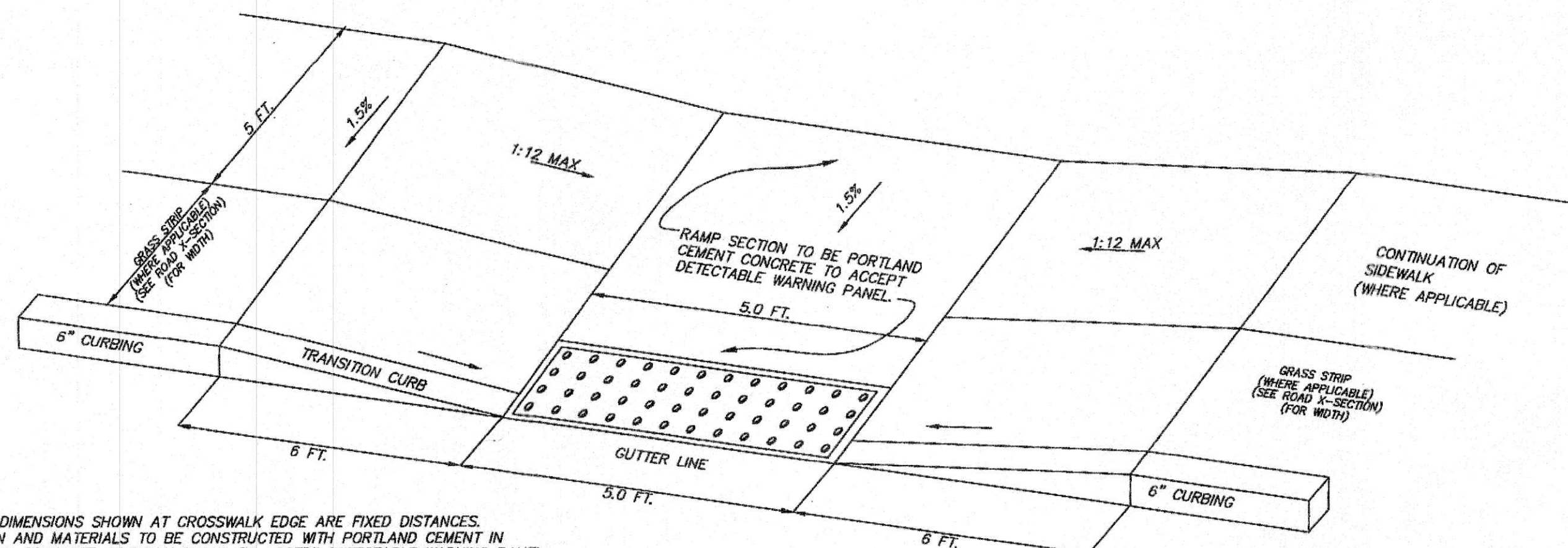
PREPARED FOR:
PRENTICE PLACE, LLC
SOTIR PAPALILLO
5 COACHMAN RIDGE ROAD
SHREWSBURY, MASSACHUSETTS
TEL: (508) 845-0564

CALC: CMA/WDH	DRWN: CMA/WDH	SCALE: NA
CHKD: WDH	APPD: WDH	DATE: AUG 23, 2017
SRV: JEF/PJB	FB: E2565.122115	JOB NO: 2565
TAB: 9-DET	SHEET 12 OF 13	PLAN NO: C-12-15

PLAN BOOK 955 PLAN 23
SHEET 12 OF 13

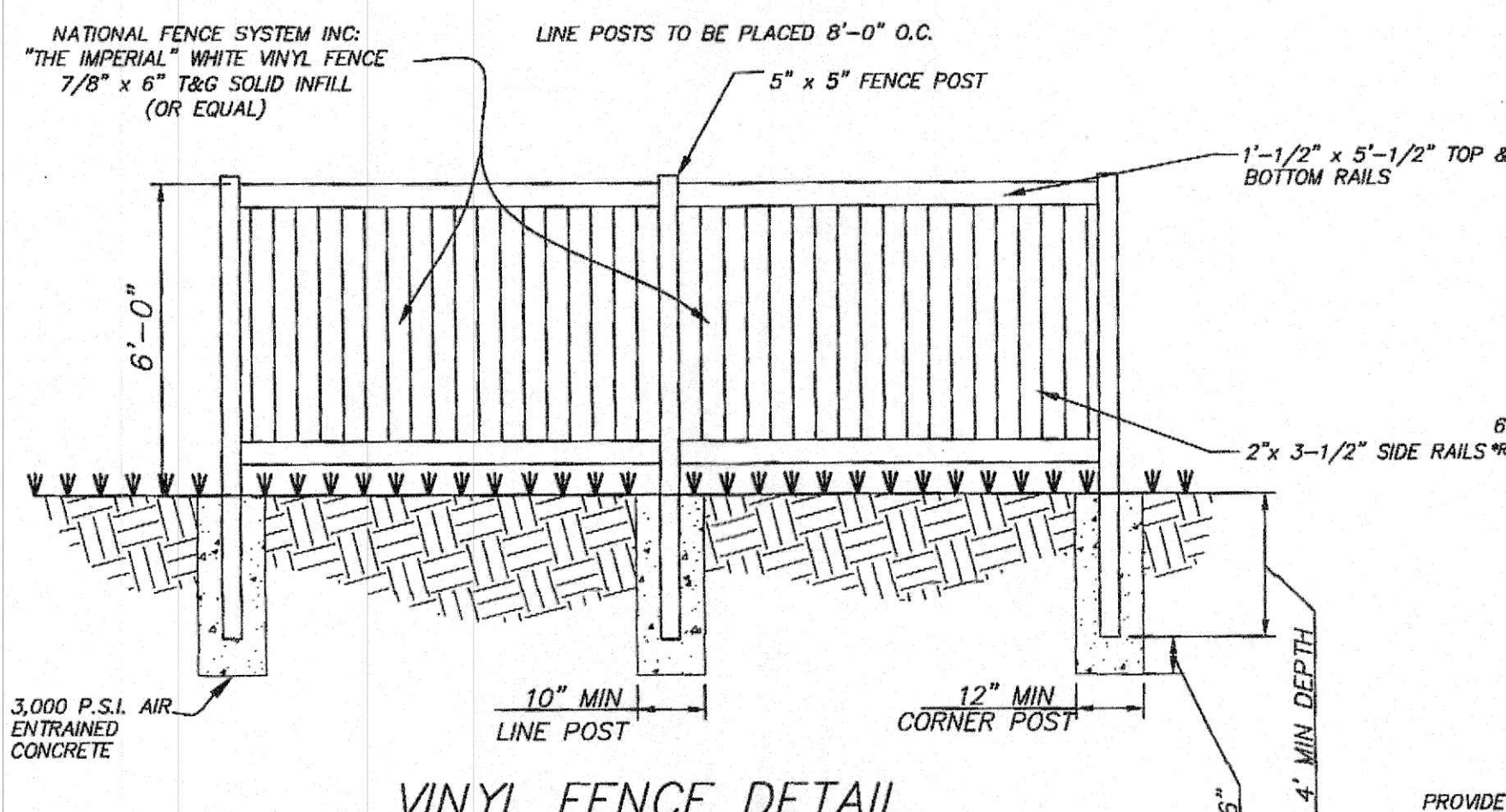
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DAVID J. LeROY, P.L.S.#47416 DATE: 1-20-21

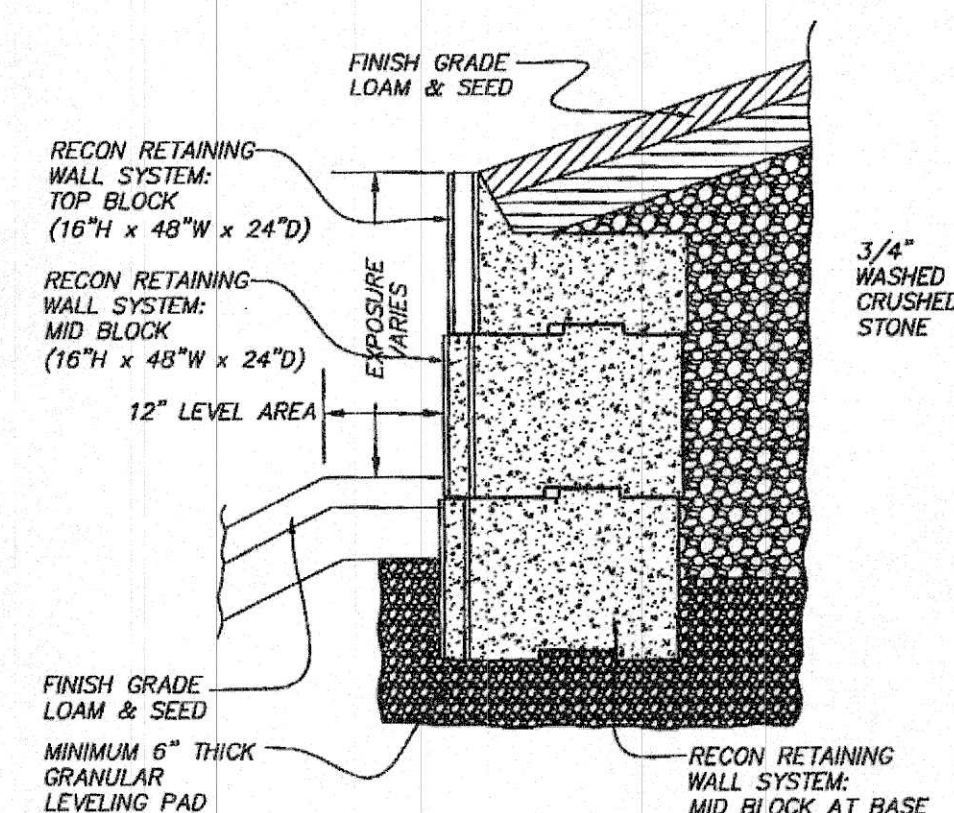


- NOTES:
1. THE CURBING DIMENSIONS SHOWN AT CROSSWALK EDGE ARE FIXED DISTANCES.
 2. RAMP SECTION AND MATERIALS TO BE CONSTRUCTED WITH PORTLAND CEMENT IN ACCORDANCE WITH CONCRETE SIDEWALK DETAIL TO ACCEPT DETECTABLE WARNING PANEL.
 3. PORTLAND CEMENT CONCRETE RAMP ARE TO BE TEXTURED BY BROOMING IN A DIRECTION PARALLEL TO THE LENGTH OF THE RAMP.
 4. IN NO CASE ARE THE RAMPS TO BE PLACED BEHIND THE STOP LINE.

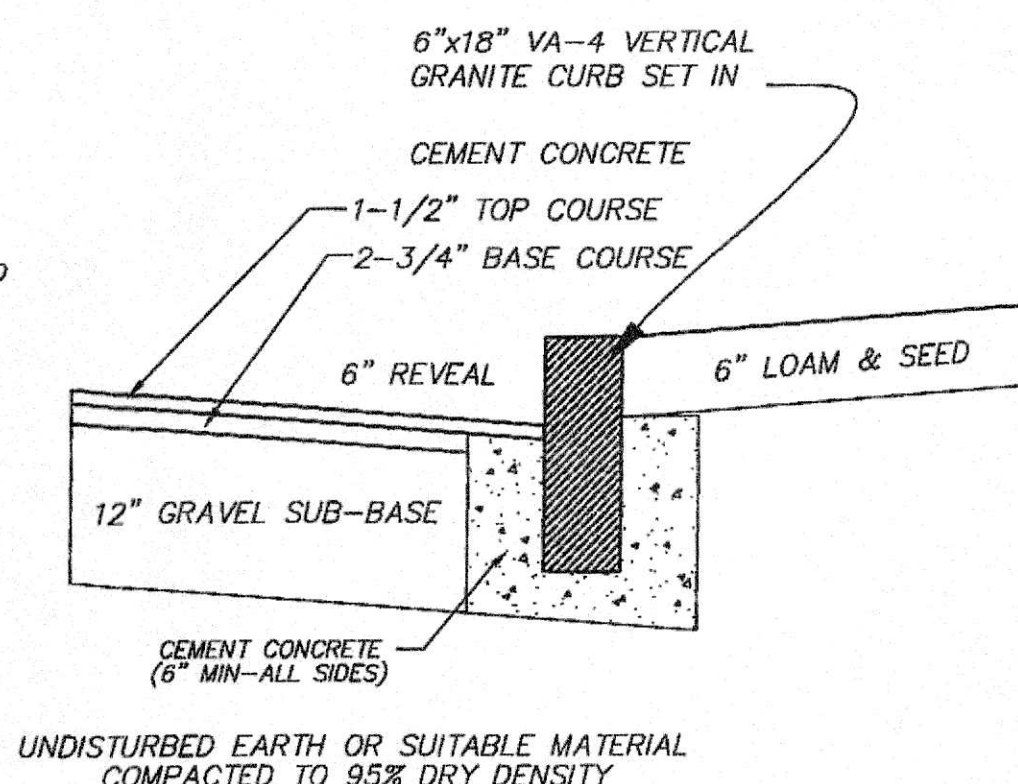
WHEELCHAIR RAMP DETAIL



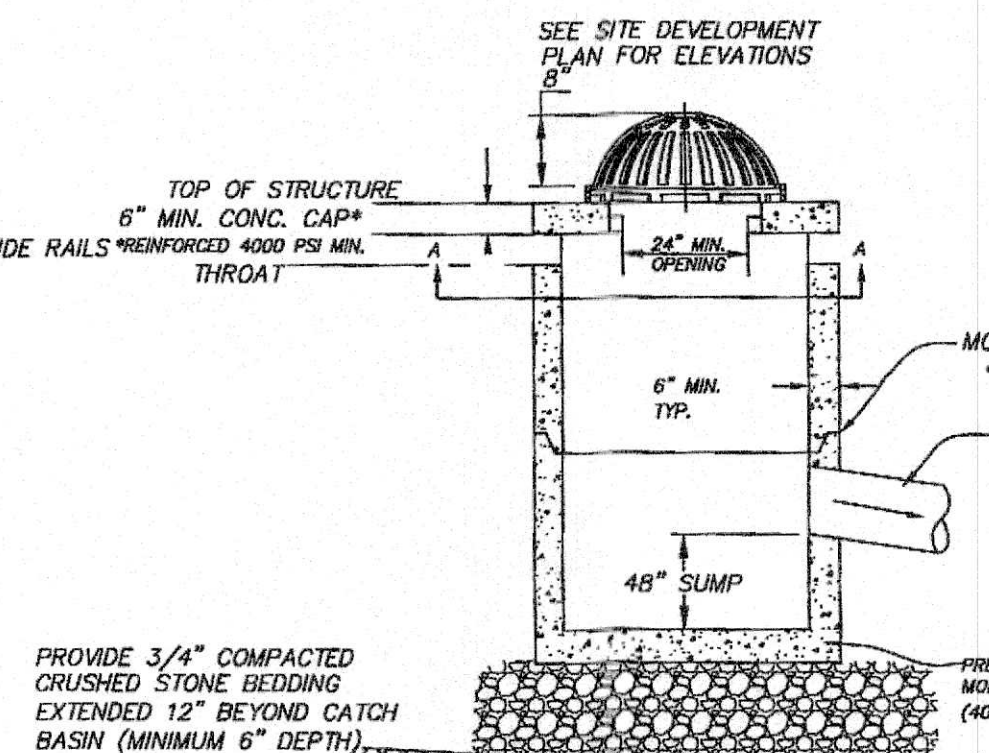
VINYL FENCE DETAIL
NO SCALE



RECON RETAINING WALL
NO SCALE
(SEE MANUFACTURER'S SPECIFICATIONS)



VERTICAL GRANITE CURBING
NO SCALE



DROP INLET STRUCTURE
WITH DOME GRATE
WITH 1/8\"/>

PLANTING LIST AND NOTES

APPROXIMATE SPECIES MIX

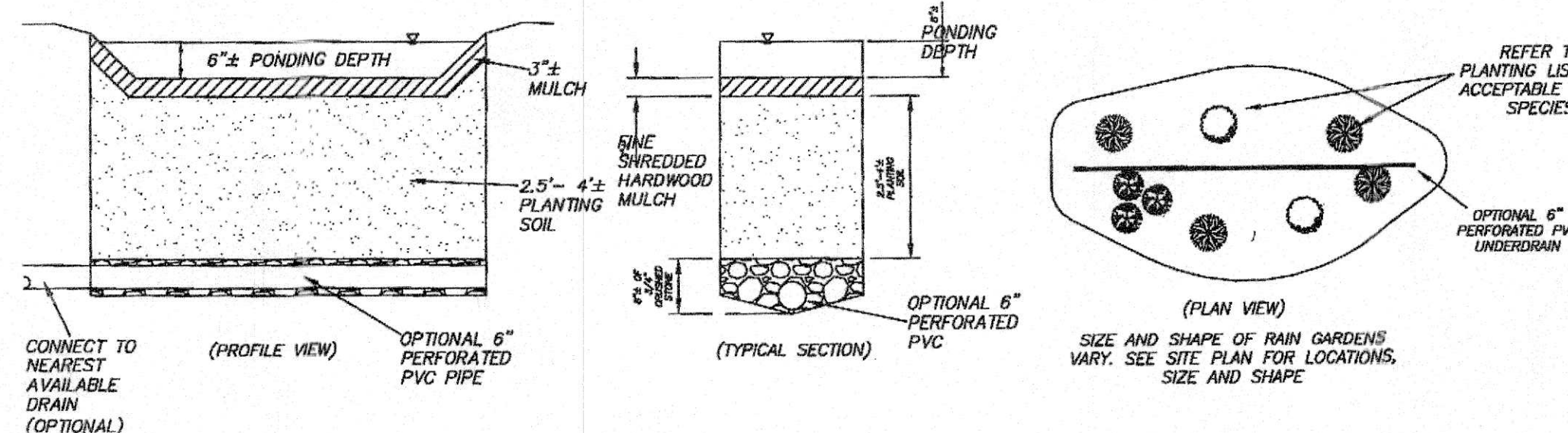
RED CHOCHEBERRY
SWEET PEPPERBUSH
RED OSLER DOGWOOD
SPINDLE TREE
WITCH HAZEL
COMMON ST. JOHN'S WORT
INKBERRY
WINTERBERRY
NANNYBERRY
RED TOP

NOTES:

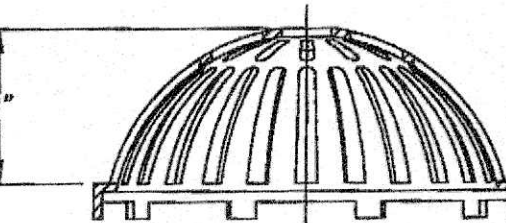
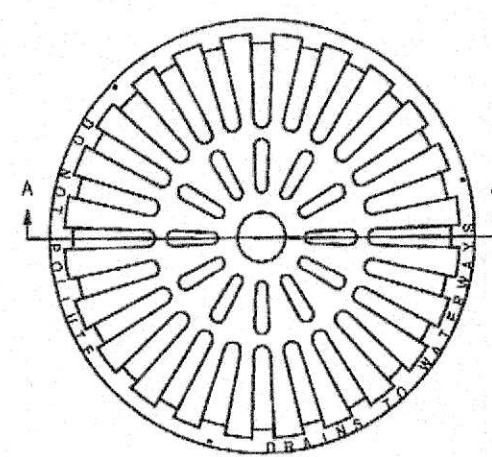
1. THE PLANTING PLAN SHALL INCLUDE A MIX OF HERBACEOUS PERENNIALS, SHRUBS AND (IF CONDITIONS PERMIT) UNDERSTORY TREES THAT CAN TOLERATE INTERMITTENT PONDING, OCCASIONAL SALINE CONDITIONS DUE TO ROAD SALT, AND EXTENDED DRY PERIODS.
2. INVASIVE OR EXOTIC SPECIES ARE PROHIBITED
3. REFER TO MASSACHUSETTS STORMWATER HANDBOOK (VOLUME 2, CHAPTER 2) FOR ADDITIONAL INFORMATION REGARDING PLANT SPECIES SUITABLE FOR USE IN BIORETENTION.

PLANTING SOIL NOTES

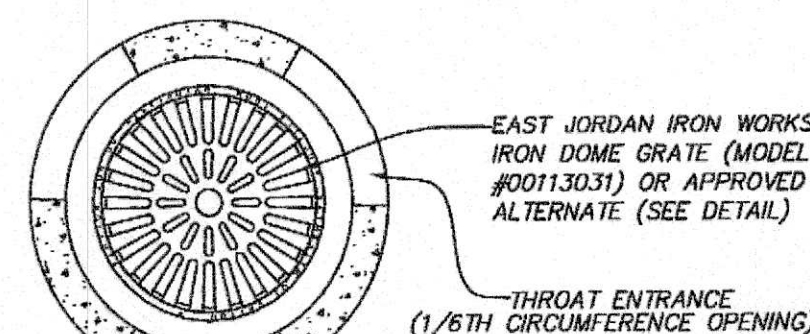
1. THE SOIL MIX SHALL BE A MIXTURE OF SAND COMPOST AND SOIL AS FOLLOWS: 40% SAND, 20-30% TOPSOIL AND 30-40% COMPOST.
2. THE SOIL MIX MUST BE UNIFORM, FREE OF STONES, STUMPS, ROOTS OR SIMILAR OBJECTS LARGER THAN 2\"/>



RESIDENTIAL RAIN GARDEN DETAIL
(NO SCALE)

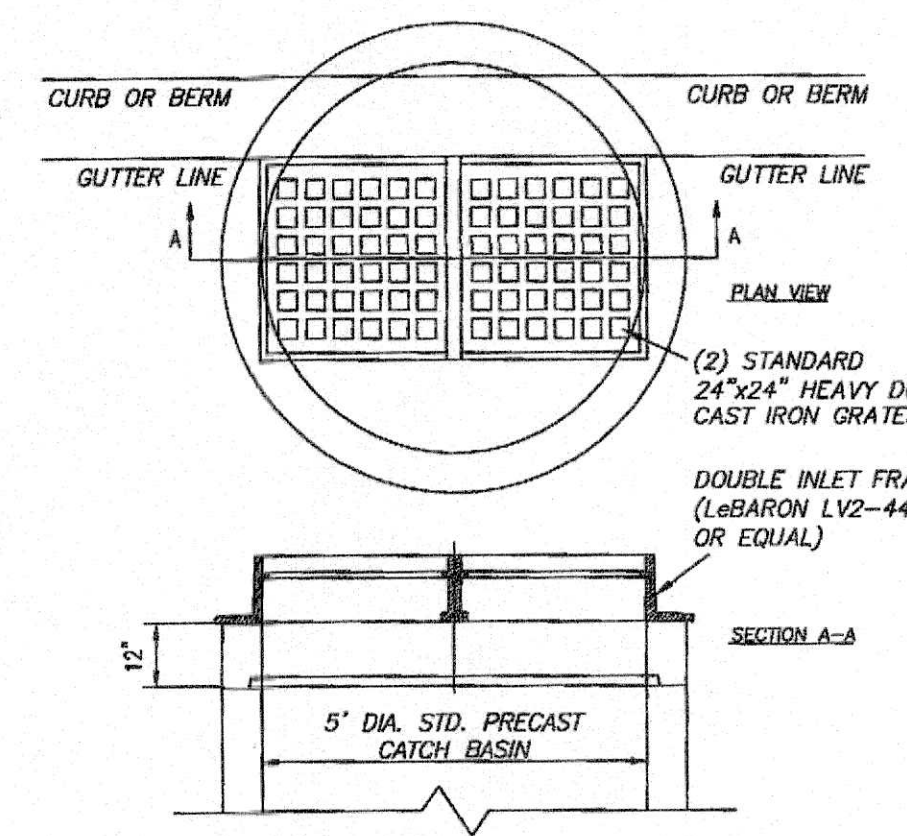


DOMESTYLE GRATE
NO SCALE

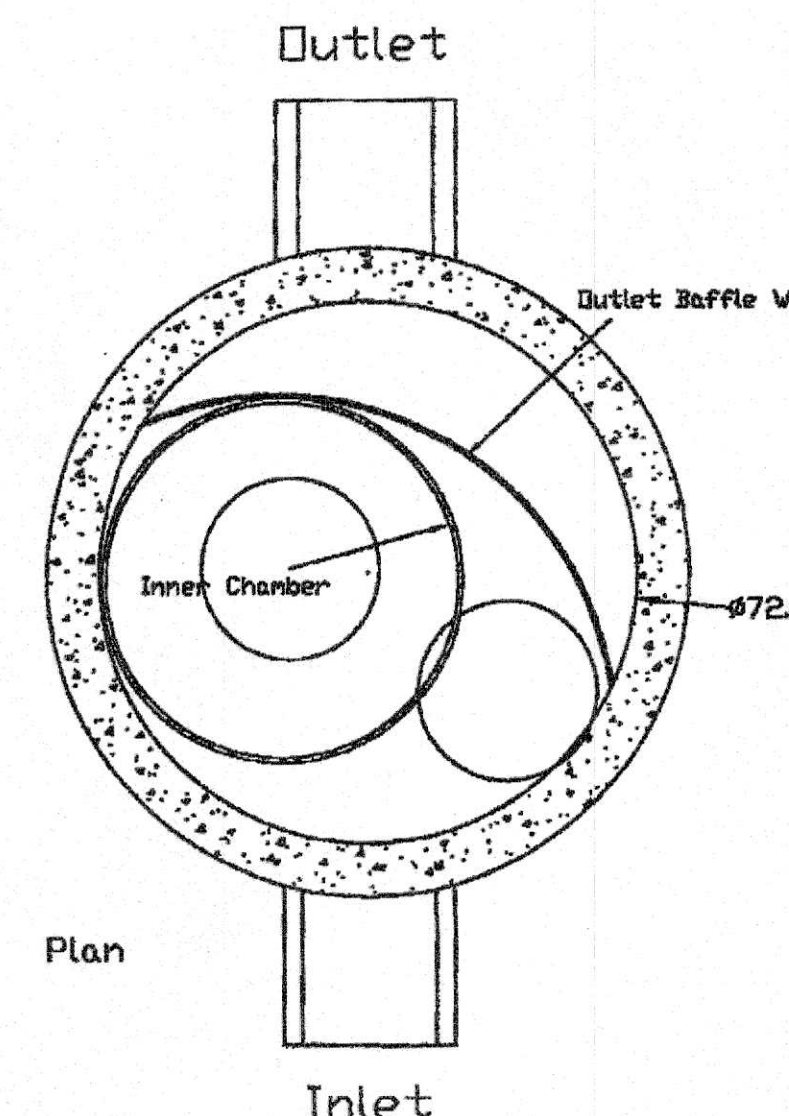


PLAN VIEW
SECTION A-A

- GENERAL NOTES:
1. CATCH BASIN TO BE PRECAST REINFORCED CONCRETE
 2. STEEL REINFORCEMENT TO CONFORM TO A.S.T.M. A185 AREA 48\"/>



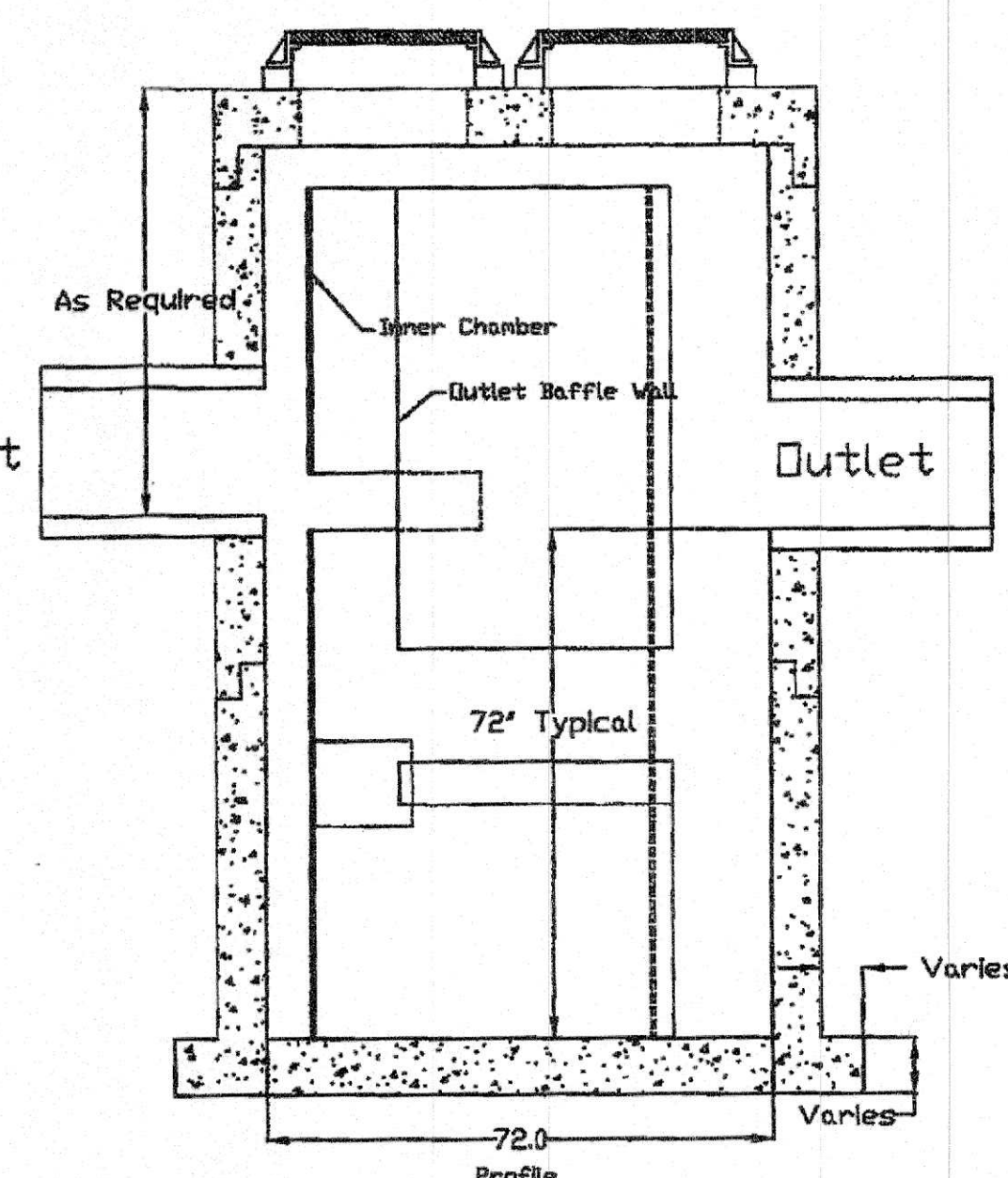
DOUBLE INLET GRATE DETAIL
NO SCALE



U.S. Patent No. 6,951,619

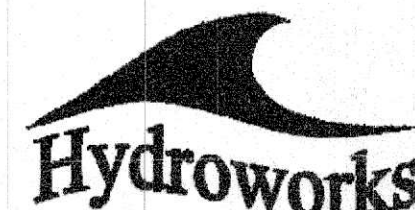
Dimensions in Inches
Permanent Pool Volume = 1250 US gallons
The Hydroguard must be cleaned after the construction period
If it is used as a sediment and erosion control measure
The Hydroguard should be inspected once per year for stabilized sites
Inspection will determine the maintenance frequency (annual maintenance or once every two years typical for stabilized sites)
Sites with unstable conditions (exposed soil or materials storage) will require more frequent inspection and maintenance

Hydroworks, LLC
Phone: 888-290-7900 Fax: 888-783-7271
Web: www.hydroworks.com



Hydroworks HG6 (72\"/>

PROJECT:
LOCATION:
REVISION DATE: 6/16/2017



WATER QUALITY UNIT: DMH#8

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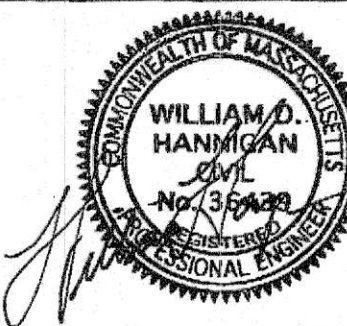
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APPROVAL PURSUANT TO CH. 40 B §20.23
GRAFTON BOARD OF APPEALS

DATE: 2/24/21
CHAIR

Town Clerk
Gandy L. Saville

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CONSTRUCTION DETAILS IN GRAFTON, MASSACHUSETTS

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CALC: CMA/WDH	DRWN: CMA/WDH	SCALE: NA
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PLAN BOOK 955 PLAN 23
SHEET 13 OF 13

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WAS PREPARED IN CONFORMANCE WITH
THE RULES AND REGULATIONS OF THE
REGISTERS OF DEEDS.

David J. LeRoy 1-20-21
DAVID J. LEROY, P.L.S. #47416 DATE: